IOWA
MEDICAL JOURNAL

Vol. XIX Des Moines, September 15, 1912 No. 3

Original Articles.

THE JUDICIOUS USE OF BACTERINS IN THE TREATMENT OF TYPHOID FEVER BASED ON THE EARLY DIAGNOSIS BY THE LEUCOCYTE PICTURE.

(With a resume of the results achieved by its application and a consideration of the pathology of immunity).

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Protection against disease is one of the most important amongst those questions which are engrossing the attention of the medical profession at the present time. The problem of immunity in relation to infectious diseases, which is daily assuming greater proportions, is one that not merely concerns general pathology, but has an all-important bearing on the different branches of practical medicine, surgery, hygiene, etc., etc.

While it is not the intention that this brief resume should be a disquisition on immunity yet we may with expediency consider, in a general way, the principles involved, marshalling the ideas thus gained into theory.

Immunity against infectious diseases should be understood as that group of phenomena in virtue of which an organism is able to resist the attack of the micro-organisms that produce these diseases.

When micro-organisms gain entrance to the animal or human body and give rise to disease, *i. e.*, live and multiply in the animal fluids and tissues, the process is spoken of as infection.

The inciting or inhibiting factors which permit or prohibit an infection are dependent in part upon the nature of the invading organism and in part upon the condition of the defensive mechanism of the subject attacked. If the defenses are abnormally depressed or the invading micro-organisms are disproportionally virulent or plentiful then infection takes place. Broadly speaking, then, we express the severity of any given case of infectious disease as the difference between the resisting powers of the organism and the virulence of the microbe, taking into consideration that disease is the result of the interaction of both of these factors.

When infection takes place the process may well be looked upon

in the nature of a conflict. On the one hand offensive weapons are brought into action by the invading micro-organism, while on the other hand the host represents the defense and guards the body against invasion by pathogenic microbes. Whether or not we are going to be victorious in the ensuing contest depends to a large extent upon the capability of the system of setting in motion the machinery which elaborate, in response to the appropriate chemical stimulus, the products demanded for the purpose of immunization. It is through these defensive substances that the human economy seeks to protect its cellular units against the invading micro-organism.

Recovery from infectious disease depends on (A) the destruction of causative organism and (B) the elimination or neutralization of the toxins produced by them.

In typhoid fever there is

(1)—A destruction of organisms by bacteriolytic process with liberation of endotoxin;

(2)—This endotoxin excites the formation of a specific anti-body to it and an antitoxin is produced which "fixes" the toxin present;

(3)—The infecting dose of the organism, being more than the feeble natural defenses of the body can handle, they multiply rapidly;

(4)—Besides the liberation of endotoxin from within the cell of the destroyed bacillus, substances exciting the production of agglutinins and bacteriolysins are also set free.

However, when bacterins (killed organisms) are introduced into the system

(1)—Endotoxin is supplied without the destruction of organisms by the body;

(2)—The anti-toxin, the formation of which it excites, produced in excess of that needed to neutralize it, becomes available to act on the toxin produced from bacteria killed within the body;

(3)—The bacteriolysins and agglutinins whose formation the dead bacilli have excited are ready to act at once on the living bacilli in the tissues.

If we consider carefully the above phenomena it will be seen that while the achievement of increased bactericidal power is the primary object of concern, it is legitimate, as a secondary and subsidiary object to aim also at the neutralization of the toxic elements of the bacterial protoplasm which are set free and pass into solution when the typhoid bacillus is broken up in the organism.

Wright and Douglas (1) have conclusively demonstrated that our blood fluids perform a definite role in conjunction with phagocytosis:

By the simple experiment of testing separately and in conjunction, the serum and the leucocytes, they have shown that opsonins exist in

serum and that their function is, in some way to alter the microbe so that it may be rendered an easy prey to the phagocytes which are often referred to as the "soldiery" of the body. The microbe after being taken up by the leucocyte is very quickly digested. If the leucocyte is suspended in a serum from which the opsonins have been removed, they are incapable of manifesting any phagocytic action.

To what degree opsonins, which according to Hektoen (2) are distinct from other antibodies, are active in typhoid fever in which agglutinins and bactericidal substances form in large numbers, has been ably demonstrated by Klein (3). I take the liberty of quoting him in detail: "By experiments it has been shown that by immunizing a rabbit against typhoid fever, opsonins are formed in a considerable high degree. When we take in consideration the fact that the opsonic effect was obtained in ten minutes we may suppose that the opsonins may be the most active substances of the typhoid immune serum. Therefore it is possible that the preparation of bacteria for phagocytosis and the phagocytosis itself, may be at least as important for immunization against typhoid as the increase of bacterial action of the blood serum, which by many is not considered the most important factor."

Vaccines depend for their action, not upon any direct anti-toxic or anti-bacterial substances but act only secondarily by inciting the production of immune substances by the patient himself. We do not bring to the debilitated individual immune bodies already manufactured as we do in giving anti-toxin in diphtheria, but we endeavor to stimulate the system to produce for itself large quantities of protective bodies, thus inhibiting the growth of the invading organism and curtailing the course of the disease.

According to Wright (25), inoculations of cultures of typhoid bacilli induce the organism an elaboration of agglutinin, bacteriocidal, bacteriolytic, anti-toxic and opsonic anti-tropins and he (26) further concludes that "Bacteriocidal power of the blood is increased sometimes as much as one-thousand fold as the result of a single inoculation of suitable quantities of a sterilized culture."

That we can introduce into the system, with impunity, the bodies of dead bacteria in the early course of typhoid fever and that there is no danger of adding to the amount of circulating toxins, thereby exhausting the host, rather than the benefit of stimulating it to produce added antibodies, is experimentally proved.

Semple (4) is of the opinion that the conditions as they ordinarily obtain in a case of typhoid fever are decidedly unfavorable for the rapid production of protective elements. The specific bacterial elements in this disease are being constantly introduced into the blood

stream where they are killed off and diluted to such an extent that when they come in contact with the tissues which elaborate protective substances the response elicited is but feeble.

As pointed out by Adami (5) once bacteria have established themselves within a given tissue and have undergone proliferation there, that in itself is a sign that that particular tissue is not immune, that the subsequent arrest of their growth is not due to an exaltation of the bactericidal powers of the local tissues but is due to aid contributed by the organism from without. Thus when bacterial elements are introduced subcutaneously in the form of a vaccine, the healthy connective tissue has the power of elaborating and bringing into action in immense quantities, a great variety of different, though related protective substances—opsonins, agglutinins, lysins, etc., allowing of a gradual percolation of the added bacterial products into the blood and lymph streams, carrying them to all parts of the body. It therefore seems possible to reinforce the system by directly bringing into the struggle healthy tissue not already involved. To introduce specific bacteria, away from primary focus of bacterial growth, to induce an increased anti-bacterial reaction on the part of the other tissues seems but rational. Russell (6) says that "typhoid fever is largely a disease of the lymphoid tissue which is the place of least resistance in the body. This is equivalent to saying that the lymphoid tissue is the least able the protective substances resulting from the inoculation are formed in the tissues at the site of administration. In substantiation of the views I would respectfully refer to the very excellent article by Hektoen and Carlson (7) who furnish experimental proof that "the anti-bacterial substances are not elaborated in the blood itself but in the tissues."

The resultant toxic effects, produced by injection of vaccines, are of a negligible quantity and are mainly localized in the vicinity of the site of inoculation.

Richardson (8) concludes that in the vaccine method of treatment, success predisposes that the patient has reserve capable of being aroused into action. To delay until the system is completely overwhelmed with poison and the reactive powers of the patient are overcome or exhausted and then try to neutralize the toxins is simply adding insult to injury and would seem manifestly absurd.

Furthermore, the increased bacterial destruction with setting free of the added amounts of endotoxin, to which the pathogenic action of the bacillus typhosus is attributable, must not be too rapid or excessive less efforts to cure do harm through hyper-intoxication.

The production of a cumulative positive phase is important. It is imperative that we follow up positive phase response without calling into existence any perceptive negative phase. This is attained by in-

jecting vaccine at the beginning of attack and using doses just large enough to produce a response without producing any registerable negative phase. The intensity and duration of the negative phase is directly dependent upon the dose of vaccine administered and can in all cases be regulated by apportioning the dose of the bacterin.

An important point connected with the elaboration of immune bodies by the system is that it should take place before marked necrotic changes have occurred in the tissues and organs affected—hence the necessity of early diagnosis and administration.

Blood Condition as an Early Diagnostic Sign in Typhoid Fever.

The leucocyte picture in a case of typhoid fever speaks for a vigorous lymphadenoid tissue reaction. Hultgen (9) states that according to Renaud (10) "the leucocytes as the most sensitive and active derivatives of the mesoblast are cytologically part of the general lymphatic system. They respond readily and invariably to every irritating alien proteid according to laws and conditions as yet not understood. Alterations in the tissue juices and parenchymatous organs are promptly reflected upon the physiognomy of the blood. The regularity of their occurrence and the early appearance of the leucocytic changes in typhoid and para-typhoid are striking." And the same author further concludes that (11) the leucopenia and the leucocytic formula of the typhoid fevers are as nearly specific as the agglutination. They occur simultaneously with the bacilloses. Careful, repeated, double leucocyte counts afford the earliest reliable means of typhoid fever diagnosis for the general practitioner.

Cole, U. S. A. (12), working entirely independently of Hultgen on the blood picture in typhoid fever appears to have reached identical results on the same point. He states that if the blood making organs are the channels of entrance of the typhoid bacilli into the body and constant changes in the structure follow such entrance that it seems but reasonable to infer that in these structures we should seek the earliest evidences of the disease. He further states that because of the fact that in every case in which blood counts were made early in the disease, before a positive Widal reaction has been obtained, "a constant condition of the leucocytes were noted, *i. e.*, a leucocyte count of 4,000 or 5,000 per cu mm, with a differential count showing a marked increase of mono-nuclear leucocytes—30 to 50 per cent. large lymphocytes; 4 to 16 per cent. small lymphocytes; 7 to 10 per cent. transitionals, and a decrease of the polynuclear cells—48 to 50 per cent."

For the detailed total and differential leucocyte picture as it pertains in typhoid fever I can do no better than to refer the reader to

Hultgen's (9) brilliant work on this subject based on clinical proofs. I herewith summarize his findings in detail:

(1)—Leukopenia, marked, early and progressive, very likely preceded for twelve to twenty-four hours by a slight leukocytosis.

(2)—Initial polynucleosis, lasting the first four to eight days, moderate in all uncomplicated cases.

(3)—A progressive and marked mono-nucleosis, displacing the polynucleosis and lasting well into recovery.

(4)—A constantly present, well marked increase in the large mono-nucleosis, which begins with the onset of the disease and disappears only after four to five weeks.

(5)—A sudden, early and complete disappearance of eosinophiles, in striking contrast to the leukopenia, is followed by very slow and hesitating reappearance synchronous with the first inklings of recovery.

The Treatment.

McCrae in Osler's Modern Medicine, Vol. II, pp. 201, states, in discussing the treatment of typhoid fever that "the problem is to bring the patient through a severe infection," but in the light of our present knowledge we might well say that the problem is to aid the subject to bring himself through by stimulating his defensive factors thus fortifying the bodily defenses.

The successful treatment depends essentially upon an early diagnosis: A review of the literature, both American and foreign, failed to reveal the record of one single death in typhoid fever where the vaccine was used early—in those cases which had not passed beyond the first week—while the general consensus of opinion was that no harm is apt to result from this treatment and that practically all the reporters believe their patients were improved by it, many citing incidents of most striking results.

A careful consideration of the favorable opinions so forcibly expressed and a general analysis of the excellent results obtained will surely suggest to those of impartial mind the advisability of the use of vaccines in the early treatment of typhoid fever. Such reports as follow based on clinical observation, regarding the curative value seem to be sufficiently conclusive to admit of dogmatic statements.

In the list of references attempt has been made to mention the name of every author from whom ideas have been borrowed for this article.

Chantemesse (13), in reviewing his series of cases from April, 1901, to July, 1907, reports that he treated over one thousand cases with anti-typhoid serum with a death-rate of 4.3 per cent., while out of five thousand six hundred and twenty-one patients given the routine treatment—without serum—during the same period of time, 17 per

cent. died. Of those patients given the injection *before the seventh day* Chamtemesse lost not *ONE SINGLE CASE*. He insists that the vaccinated individuals had an unexpectedly good appearance and it was no uncommon thing to go into the ward when full and find nearly every inoculated patient quietly and comfortably sleeping. The typhoid "facies" was in most cases conspicuous by its absence. There is a strong bactericidal element in his serum.

Watts and Eaton (14), reporting a series of cases treated with vaccines, state that "The writers prefer that the readers draw their own deductions but after having had about forty cases under observation, suggest that it seems probable that the early administration of typhoid vaccine is able, in a distinct number of cases, to shorten materially the duration of the disease and that even in those cases where the temperature is uninfluenced, the clinical symptoms seem to show distinct improvement, the disease running a very mild course."

Fletcher, U. S. A. (15), reviewing his fourteen cases, says: "The contrast following a single inoculation was consequently remarkable. The therapeutic administration of anti-typhoid vaccine is attended with no bad results and does in no way increase the patient's discomfort. On the other hand its use did, in all of the cases observed, improve the general condition of the patient; while in three cases its action was nothing short of marvelous—the entire picture was changed in forty-eight hours from that of a man whom the nurses were expecting to carry out any minute to that of a patient distinctly able to take notice. In view of these facts it would seem that vaccine in typhoid fever is certainly rationally indicated."

Leishman (16), reporting thirty-six cases treated with vaccines, arrived at the following conclusion: "It will be obvious that this system of treatment shows considerable promise for good and it is greatly to be hoped will be given a more extended trial."

Smallman (16), commenting on Leishman's thirty-six cases, states that "Everyone who has been concerned in the care of the patients has been quite convinced that the injection of vaccine does produce an undoubted good effect. Moreover no bad results have so far been noted."

Allen (17), in presenting a report on thirty cases treated with typhoid vaccine, says: "As I watched the progress of these cases I found myself relying more and more upon this new method. It was a very unique and interesting phenomenon to me to see repeatedly apparently serious cases of typhoid fever, presenting all the usual symptoms, rapidly overcome them and in a few days change the whole complexion of their illness for the better, going on to a rapid convalescence. After but one treatment some of them began immediately to improve in every respect. The fever became less, the headache and backache disap-

peared, the tongue cleared up and they began to complain of hunger. Most of them would say, if asked, that they felt better and that, also, very soon after the initial treatment. About 75 per cent. of all the cases were favorably influenced, and I believed the illness shortened from one to three weeks in all of them. In conclusion, let me say that I firmly believe that a good long stride has been made in the treatment of typhoid by vaccines and that a great many cases will be cured in the future by it alone, using only those rational hygienic and dietetic measures which seem necessary."

Meakins and Foster (18), reporting the results obtained in forty-one cases state that "The beneficial influence of the vaccines on the toxic symptoms are almost constant. In some cases the toxæmia diminished out of all proportion to the drop in temperature. It may be stated at this time that in no case did any increase in toxic symptoms appear after administration of vaccine. From the findings in these cases it is apparent that the earlier the vaccine can be started the better the results. The treatment of typhoid fever by vaccines shortens the course and diminishes the severity of the disease. The treatment has also a very beneficial influence on the number of complications, relapses and deaths in typhoid fever."

Petruschky (19), reports that cases of early and uncomplicated typhoidal infection—not passed beyond the second week—offer very encouraging results under vaccine treatment.

Elliott (20), concludes that "Almost every individual reporter has declared that the temperature, course and convalescence have been markedly benefited. I must acknowledge that I have become just a little enthused over this method of treatment and shall continue to administer the vaccines to all cases of typhoid fever if seen within the first eight or ten days."

Hollis (21), reporting on eleven cases, predicts "a brilliant future for typhoid vaccine as a protective as well as a therapeutic agent."

Leishman, Harrison, etc., (22) pointed out that, even with very small doses of vaccine, a remarkable development of protective substances occurred in the blood of the inoculated.

Of the eleven cases observed by Semple (4), details of which are given, "nine were treated with vaccines—viz., seven with stock vaccines and two with autogenous vaccines. Two of the eleven patients did not wish for vaccine treatment. One of the untreated patients died. All those who received vaccine treatment made a good recovery. Judging from the results obtained in the few cases which I have treated, the method is worthy of careful consideration and may possibly be the means of greatly diminishing the death rate from this disease."

An editorial in the New England Medical Gazette (23), comments

as follows: "In typhoid fever the outlook for treatment with vaccines is excellent, both from its prophylactic and from the therapeutic standpoint. They (clinicians) seem all to unite in the opinion that the future of vaccine treatment of typhoid fever is very hopeful. Certainly no harm has been done to any cases and apparently a decided majority show benefit."

Adams (24) is of the opinion that if given *early* then vaccination may safely be undertaken. "The good results obtained in these cases can no longer be questioned and the system evidently benefits from the slight temporary rise in temperature, which shows itself during the six hours or so immediately following vaccination."

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ANO-RECTAL DISEASE DUE TO VENEREAL INFECTION.

BY JAMES A. M'VEIGH, M. D., OF DETROIT, MICH.

Venereal disease is an important factor in the etiology of disease in all parts of the human system. Regional relationship of genital organs to anus and rectum render the latter especially prone to this kind of infection. Venereal disease of anus and rectum either direct, through practice of vicious habits, or indirect, or accidental, through extension of infection to these parts from other sources. Less direct infection of this nature in this than in foreign countries. Gonorrhœa, Chancroid and Syphilis, the principal venereal factors in ano-rectal disease. Description of symptoms, diagnosis and treatment of these conditions when appearing in disease of the rectum and anus. Report of a case.

THE PERINEUM.*

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My excuse for selecting the subject I have for this paper is not that physicians generally are ignorant of the instruction that lacerations during child birth should be repaired. I believe that every physician who attends medical meetings knows these times that the teachers everywhere, without exception, so instruct. But many physicians are not surgically inclined. They not only do not wish to become surgeons (fortunately), but they do not care to study anatomy or surgery —unfortunately, I advocate that no man can become a good surgeon who does not at the same time have a good, thorough working knowledge of internal medication; otherwise, how is he able to judge the limitations of medicine and hygiene and how can he know where surgery should interfere? The opposite is just as true—the internist should be able to know his limitations and should know when and what surgery is indicated.

So to our subject in hand. Some physicians of large obstetrical practice claim they have never had a lacerated perineum. Such men belong to the "Opie Dilldock" column, to be sure, and need not be seriously considered by intelligent physicians—but the unfortunate part of it is, that the lay people often fail to appreciate the joke. Other physicians claim that their lacerations have been few and were so very slight that they needed no repair. The worst one can say for those men is: That they have made a serious mistake—and that one who knows only needs to follow them to see what the seriousness of that mistake was. Other physicians, yet, know that every laceration (practically) should be repaired and they never fail to repair as soon as the circumstances will permit. But they fail in results very often because they have not mastered the anatomical situation, they merely sew. I am frank to admit that for five or six years of my practice I belonged to this class. We have no more excuse for belonging to this class now than to either of the former—for it is only another form of dishonesty, bred of laziness, which in many instances leaves our patients under the impression that they have been cared for properly; when really they are suffering many things as the results of careless and indifferent surgical procedure. This leads us to the class to which we can and should all belong—that class which recognizes the injury and then with a knowledge, born of industry—repairs that injury.

Surrounding the vagina proper is the sphincter vaginæ muscle. Arising from the tuberosity of the ischium and inserted into the space

*Read before the Poweshiek County Medical Society at Montezuma, August 6, 1912.

between the fourchet of the vagina and rectum is the transverse perineum muscle on each side. Surrounding the rectum externally is the sphincter ani muscle. Arising from the ramus of the ischium on either side, skirting the posterior of the vagina for almost its entire length, most of its fibres passing posteriorly to the rectum and adjoining with the fibres of its fellow on the opposite side, is the *"levator ani"* muscle *the most important factor in the composition of the "floor" of the pelvis.* A study of the nerves and blood vessels is not essential to our purpose. We have but little account to take of them in perineal surgery. The muscles are the great factor. A laceration of the mucus membrane, if it extends no deeper, needs no surgical interference; unless to lessen the chances of infection. But many of what we supposed were only lacerations of the mucus membrane, had we examined more carefully, we would have learned extended into the deeper structures and separated muscles which were very important in the maintenance of the pelvic balance. Therefore, I want to say that even yet, and knowing the possibility of a much more extensive tear than appears on casual examination, I find myself underestimating the severity of the injury and often do not appreciate the extent of the damage done until the patient is thoroughly anesthetized and the parts are widely separated. Therefore, I advocate, and know it is considered an extreme view, that in every case of laceration, unless it can be positively demonstrated that the laceration is inconsequential, an anesthetic should be given by a trained assistant before the repair is attempted. I know from a considerable experience in attempting to repair without anesthetic—under the belief that the authors were correct when they taught that a pressure anesthesia is produced during the delivery of the head —that the patient is tired and nervous and expectant of pain from the insertion of the stitches, and furthermore I know that the patient does have pain and, that in view of all of this, it is difficult if not entirely impossible to do satisfactory work. It has been said by someone "that no man is fitted to care for a woman in confinement until he has had a baby himself." I am not here to say that this should be followed in every case—but do say that it might help some, and I do say further that after a woman has gone through the puerperal state with all of its anxieties and has just passed through the delivery with its fierce pains and exhaustion, she is in no frame of mind, nor would we be in like position, to tolerate any considerable surgical repair. It is a never ending marvel to me that she manifests the patience and endurance which we constantly see. The administering of a little ether by a trained assistant at this time is entirely without danger and entirely devoid of unpleasant results. The patient is never sick from ether—

the work can be done deliberately and more cleanly, and, if we know our technique, vastly better.

There is considerable latitude allowed the uterus in its position as related to the vagina. I think all gynecologists recognize, however, that the ideal position of the uterus is at nearly right angles with the vagina. It may lie in first, second or even third degree of retroversion in some patients without any symptoms. It may be in position of anteversion and no symptoms. No matter what the normal position of the uterus for any individual as related to the vagina, it is essential that a good *"floor"* persists. If the floor is destroyed then the uterus in all positions will most likely assume the same plane as that of the vagina, the support being gone, a prolapse results. You will note anatomically what is the natural function of the levator—ani muscle. Its wide bony origin, its thickness and strength, underslung beneath vagina and rectum, like a hammock, given normal muscular tone, its action lifts the rectum and almost the entire length of vagina strongly underneath the pubic arch. The two sides of the vagina, anterior and posterior, not lateral as many believe, are held in apposition by the action of this one muscle. If there is normal muscular tone the two sides anterior and posterior of the outer one-half of the length of the vagina are in absolute apposition—flat together. By virtue of this position of the anterior and posterior walls, the lateral walls of the vagina fall in and make acute angles in the corners which are called the sulci. Presuming a tear in one or both of the sulci, if the mucous membrane is involved only, no damage is done to the outlet—a stitch or two of catgut to prevent infection and our work is done. Presuming the tear has gone deeper and separated some of the fibres of the levator ani, possibly not having involved the skin at all—then our *sling is partially cut in two,* the *hammock sags* and with it the vagina is relaxed and gapes. This tear sometimes goes deep and wide and almost severs the levator ani. It should be evident to all what is our duty in either case. But I have cases neglected and I will have much more confidence in the veracity of all of you if you will also plead guilty to having overlooked these serious injuries sometimes. Those torn edges should be brought together, not the mucous membrane only, not the skin tear only if there should be one, not only a *portion* of the width *of the torn* muscle, but in its entirety the torn and separated edges should be brought together. I use catgut for the vaginal stitches with a few retention stitches of heavy woven silk or silk-worm gut. The silk-worm gut often annoys the patient by sticking and for this reason only do I ever use the woven silk. Whatever suture material you may use is secondary and a matter of choice, but use the stitches necessary

whether ten in number or any multiple of ten to unite the fragments properly.

The greatest number of tears are in the median line. From the standpoint of support to the pelvic organs the most serious tear is the one just described in the sulcus. But a median tear can be very serious in its way if it penetrates deeply enough to separate entirely the sphincter ani muscle or worse yet tears entirely through the rectum mucosa. Scarcely could there be found a more unhappy soul than one left without control of the sphincter ani or with the recto-vaginal septum entirely destroyed. Here again a knowledge of the anatomical structure involved and a knowledge of the technique will restore the parts to a normal state. If the tear is only through the sphincter ani—a complete apposition of the torn edges of the muscle—the space between the posterior column and the skin united with deep stitches, a few deep stitches inserted externally and the work is done.

If the laceration is complete, the torn edges of the mucous membrane of the rectum must be united first with catgut on the rectal side, through the rectal mucosa, then the sphincter and next the superficial stitches, with deep external skin stitches for retention.

In all of these tears it is essential to go *high in the vagina, even beyond the upper angle of the wound,* to insert stitches so that there may be close approximation of the two sides at that point to prevent the uterine discharges from entering the wound and burrowing through to the external wound producing an abscess or fistula and interfering with primary union. If these cases are properly cared for according to the general suggestions given above, we will not see our patients one year later with a recto-cele, a cysto-cele, a prolapse or a procedentia. If we are cowards and are afraid to admit to our patients and friends that we have a laceration; if we are ignorant and do not know what injury has been done; if we are lazy or in a hurry and do not take the precaution to examine carefully we may expect to find in a year, or worse yet for us, to have some other physician find, the defects enumerated above.

For old lacerations the work of repair is not so easy. When I began doing repair work the common accepted operation was Elliott's or some modification. It was a beautiful piece of work and did some good; but it was purely a mucous membrane operation. When I had finished an Elliott operation I was as much exalted as if I had written a poem or had set one to music. I have no recollection of ever having done anything that gave me the impression of just having done the operation exactly right as did Elliott operation. Yet it went wide of the mark. Accidently, I perhaps sometimes caught up portions of the then widely separated fragments of muscles. But I did it with no

system nor precision. About six years ago I saw Goldspohn lift up the mucous membrane almost the entire depth of the vagina, hunt for and pick up the greatly retracted edges of the levator ani muscle and unite them through their entire width. He said he saw that done over in Germany. And I wondered then why it had ever been done any other way. Today no one who knows anything of repair work in old cases would think of doing a mucous membrane operation and leave the torn edges of the muscles separated from one to two inches.

In conclusion, let me say: In new cases learn what the damage is to the muscles and repair it, by approximation. In old cases, lift the mucous membrane, find the muscle edges, unite them and cover over all with the lifted sheet of mucous membrane and you will find that the results will be what you wish.

GANDERBONE'S FORECAST.

Der Kaiser of dis Faderland
Und Roosevelt all dings command—
Ve two and Gott, you understand—
Myself—und Tet.

It yust to be yust Gott and me,
But Tet he come to make it dree,
Und Gott don't count much latterly—
Yust me—und Tet.

Yust me und Tet mit power divine
To keep de rest of dem in line—
In bease und var to give der sign—
Und somedimes—Gott.

Myself und Tet der same as peas—
Der same mit Gott, if you shall blease—
Der same in war, der same in bease—
Myself—mit Tet.

Des eastern hemisphere for me—
For Tet der one across der sea—
For Gott der sky, ve vill agree—
Myself—und Tet.

A health to me—a health to Tet—
Und one for Gott already yet—
Von Holy Trinity, you bet—
Ve two—und Gott.

—Anon.

EPITHELIOMA OF THE TONGUE.*

BY W. A. GUILD, M. S., M. D.

The subject is timely because of the prevalence and extreme malignancy of this particular type of cancer and because of the recent enlivened interest in the study of malignant growths in general.

The purpose of this paper is not didactic. There is a purpose in presenting it, therefore, no apology or excuse. I hope to promote a healthful discussion and interest in the treatment of this "bete noir" of medical practice.

Time will not permit consideration of etiology. You have had recited to you repeatedly the 57 different varieties of cancer causation, from angle worms to higher education, and with every rising sun another cause is born. It is well that the child mortality keeps pace with the birth of infant ideas or we would be over-crowded in this line.

Scientific medical laboratory men and methods have given and are giving us today much interesting data and food for thought in the study of cancer. Yet there is an extreme dearth of information concerning the actual conditions existing in our patients.

Until the general medical practitioner and the dermatologist collect and classify and compare their actual experiences gained from practical experimentation on human subject, we will be waiting as we are now for a specific; while all about us malady inflicted beings are stretching out their hands to us in prayer for help. We must couple the experimental laboratory findings to the actual practical findings of our offices and hospitals.

In considering any particular kind or location of malignant growth, it is necessary to consider malignancies in general. In fact, we must consider the "Malignant Condition" of the patient which permits the development of cancer. Some of you may explain this by the "Psora" of Hahnemann.

As are other predispositions or tendencies, so surely is a tendency to malignant disease inherited. No doubt we all have, originally, a certain greater or less degree of immunity to disease. When from any source this immunity is decreased below a certain point, and the exciting causative factor is present we are attacked. The patient having cancer in any form has either a low degree of immunity to start with (inherited tendency) or, from various causes suffers a great loss of a normally strong immunity.

I will not recite the various predisposing and exciting factors of lessened immunity.

*Read before the Bureau of Dermatology of the American Institute of Homeopathy, Pittsburgh, 1912.

The extreme malignancy of Epithelioma of the Tongue is peculiar. Wounds and benign ulcerations heal quickly, yet you all know of the terribly rapid invasion of this organ.

Its soft vascular structure and supply of proximate lymphatics, prove favorable for cellular invasion and metastasis.

Its inaccessibility for treatment is a factor. The disturbance of the masticatory function and the ever-present mental picture and extreme worry caused thereby, enter into its fatality.

Our inability to get at the bottom of the matter and cope with the growth and the conditions permitting it, seem to me extreme. The vital forces of the afflicted patient are at a low ebb. The reactive power seems entirely spent, the tumor gains ground both by extension and metastasis. The patient and family and friends are helping all these adverse conditions by their infernal suggestion.

Partial excision seems not even to check or hinder the growth; amputation of the tongue and dissection of the glands, although barbarian in nature, does sometimes (when the patient survives the shock), give a few months reprieve. Yet all surgical efforts eventually prove futile.

The poor devil with Epithelioma of the tongue is slighted by medical men, buffeted by the electro-therapeutist, cut upon by the surgeon and tossed about from quack to quack until finally he comes back again to his family doctor for morphine and a death certificate. In all this hub-bub and panic, the patient, and usually the doctor, permits "that growth" to eclipse all other considerations. We forget the patient in treating his tongue.

I believe that the dermatologist, the logical man for this work, has but few tongue cases referred to him. I hold that he who assays to treat skin diseases must be most thoroughly prepared in the general practice; the more true when applied to malignant skin troubles. He must have a keen insight into the conditions and causes behind and beneath the surface. He must be able to recognize and treat the hundred and one complicating afflictions. He must be big enough to accept and employ every agency at his command, regardless of its source or origin. He must be bold to take on the new and wise enough to hold to the old. In handling cases, he must always employ every spark of that entangible "vital resistance," which, when present, means success, when absent means failure.

The ability of the patient, and our ability to assist him to "come back" is, to my mind, the greatest achievement. Most anyone can use the scalpel and scissors or apply escharotics or make hypodermic injections, but the truly great medical artist is he who can appeal to the hidden vital reactive power.

It may not be out of place to mention some remedies found valuable in Epithelioma of the tongue, in addition to the prescribing of measures for the general care.

For local application, Chronic Acid pure, Zinc Chloride 50 per cent., Thuja (tincture) and Gallium (tincture) are all efficient.

Hypodermatically into the tumor and tongue, we use: Zinc Chloride 50 per cent., Methylene Blue saturated solution, Pyrogallic acid, Oil of Thuja. The latter has proved very useful in my hands and I believe it is the best local treatment against increase and metastasis. It can be used only in patients who are strong physically. It is absolutely contra-indicated where there is organic heart trouble.

Cataphoresis is valuable. Mercury and Zinc can be applied safely and Arsenic should be used in this manner if controllable. Fulgeration will check the growth but is exceedingly painful.

The use of radium and radio active elements, if combined with skillful general prescribing and care, should prove to be a great remedial agent. Alone I believe they will pass with many other excellent remedies whose chief fault lay in the fact that too much was expected of them. We can't be lazy and treat cancers successfully.

Orificial Surgery and its philosophy should not be lost sight of. Strange as it may seem to some of you, I have found need for its employment in every case of malignancy which has come to my attention. The patients who respond most readily to the orificial work make the most rapid recoveries.

In my own practice I employ a mixed "Vaccine and Serum"—a mixture of ideas, theories and experiments, some my own, others borrowed. This serum is prepared from mixed infections, tumor extracts, defibrinated blood taken from the patient, and serum from the patients who have recovered from a similar malignancy. In not a single case where this preparation has been used has there failed to be a marked increase in reactive power. I never employ it alone, choosing to augment its action with whatever auxillary treatment seems most expedient.

We are warranted in experimentation. Our patients welcome advance and want results. We cannot do our full duty nor get results by shirking and referring all the hard cases that come to us.

Medical men have the same "God-given right" to use initiative in practice as have our bolder brethren, the Surgeons.

Let us accept what of good comes to us from the experimental laboratory, make use of all this information, together with what we already have. Try the new things, no matter whence they come, with the welfare of our patients foremost and fear of criticism forgotten. For humanity's sake and not for plaudits, let us strive.

THE FALLACY OF THE HASTE TO OPERATE.

BY WILLIAM E. SANDERS, A. M., M. D., DES MOINES, IOWA.

The discriminating surgeon will naturally divide his cases into two groups; the one demanding early or immediate action, while in the other, hasty interference is not required, or indeed, is strictly inimical to the patient's best interest.

It is the latter group to which I wish to direct attention by citing a few illustrative histories from my own cases.

Case I.—Mrs. C., aged 57. Previous health good, consulted me in August, 1910. She had had an enlarged thyroid for years which had recently become very much reduced in size.

She complained of tachycardia, palpitation, nervousness, tremor and insomnia, which had existed for the last three or four months. She had lost forty pounds weight.

There was slight exophthalmos, von Graefe's and Dalrimple's signs were present.

The urine was negative, temperature normal and pulse 120.

Diagnosis: Hyperthyroidism. An immediate operation based on a similar diagnosis had been recommended by an ambitious young surgeon.

Believing that the symptoms could largely be explained on the basis of a rapidly involuting colloidal gland, thus loosing its ability to store iodine, I advised rest in the recumbent position, full diet with milk between meals, bromide of sodium and tincture of belladonna three times a day, and sodium phosphate before breakfast.

The improvement of the heart's action was immediate.

Within six months the enlargement of the thyroid had completely disappeared, and six months later she had regained her former weight, and is now, after two years, in perfect health.

Case II.—Miss A., an American born spinster of Scandinavian parentage, aged 32, consulted me March 3, 1910.

She had been a seamstress for years and worked much by artificial light, had frequent headaches of the migrain type, had always been thin, but otherwise, previous health good.

There was no history or suspicion of lues.

The present difficulty began in June, 1908, with patchy defluvium of the hair of the scalp, resulting within six months in complete baldness. During this time the brows and lashes were lost but were soon replaced again.

Menstruation became irregular and was completely suspended in June, 1909.

About this time she noticed a smarting of the eyes and a friend remarked a drooping of the upper lids.

She remained under treatment for amenorrhœa and alopecia from August, 19080, to January, 1910, without benefit.

She was thin but appeared reasonably vigorous. One was struck by the peculiar facial expression, which showed a drooping of the upper lids, partially concealing the pupils. She had to close the eyes often "for rest."

An attempt to evert the lids was unsuccessful, the lashes pulling out. The pupils were equal and responded to light and accommodation. She could read several lines of ordinary print without difficulty.

The motor range of the eyeballs was normal, but on looking upward the pupils were concealed by the lids.

There was slight nystagmus on extreme lateral motion and she could not resist the forcible opening of the eye lids.

The intraocular tension appeared normal and the color fields for red and blue were equal to those of the examiner.

The thyroid was palpable but not enlarged.

Aside from the eye symptoms the other cranial nerves appeared normal. The muscle tonus, sensibility, and reflexes of the face, body and extremity were normal.

Ophthalmoscopic examination showed the papillæ of both eyes to be indistinct, surrounded by a light yellowish halo two or three times its diameter. The arteries and veins were distinct and not tortuous and there was no evidence of hemorrhage. During the examination it was necessary to support the upper lid with the finger.

A twenty-four hours specimen of urine was negative.

A blood count April 12th showed, hæmoglobine 100 per cent. Whites, 5,200; reds, 6,044,400, with 21 per cent. lymphocytes and 62 per cent. polymorphoneuclears.

On April 20, fibrillary twitchings of the orbicularis palpebrarum muscles were noted, and a gynecological examination was negative except the uterus was slightly undersized. About the first of May she developed a sense of swelling of the tongue, indistinct articulation and a nasal voice.

She had difficulty in swallowing solids and liquids often regurgitated into the posterior nares.

These symptoms seemed to get worse toward evening.

The twitchings of the muscles around the eyes were marked, the veil of the palate hung low but was sensitive to tickling, causing wretching and retraction of the uvula.

The masseters and temporals contracted forcibly.

Tests for the olfactory, gustatory, and auditory senses showed them all normal.

The myasthenic faridization reaction was absent in the facial and biceps muscles.

Diagnosis: The original diagnosis lay between a *tumor of the hypophysis, cerebral lues, superior polioencephalitis,* and a beginning *myasthenia gravis.*

The papillitis could readily be explained on the basis of either of the first three conditions, but the absolute symmetrical and gradual progress, the fibrillary twitching, the absence of the myasthenic reaction, the lack of response to antiluetic treatment, with the recent development of bulbar symptoms, established the diagnosis of a combined superior and inferior polioencephalitis, which had begun in the anterior group of the motor oculi nucleus supplying the levator palpebral muscle and was now extending to the bulb.

Little encouragement was given, and the patient unmindful of the serious nervous state, but greatly concerned about the amenorrhœa, consulted a surgeon, who overlooked the nervous condition, and with more zeal than prudence anæsthetized and curetted her, from which she died, I believe, on the following day.

Case III.—J. J., aged 60, consulted me October 27, 1909.

Previous health good except he had a siege of stomach trouble during one summer about fifteen years ago, characterized by pain and occasional vomiting.

The present complaint began about two months ago, with thirst and pain in the stomach, relieved by vomiting or eructations of gas.

He occasionally vomited a quart or more of thin fluid not containing many food particles. He had lost considerable weight. The bowels were constipated. He had been under treatment (medicine), for two months with no improvement.

Inspection of the abdomen showed marked peristalsis of the stomach, which became more marked on distension with gas. This combined with percussion and auscultation showed the greater curvature to be two or three inches below the umbilicus. The abdomen was otherwise negative.

A Boas-Ewald Test Meal removed by stomach tube after one hour, showed one and a half leiters of yellowish gray fluid which sedimented poorly, and contained no visible blood or tissue particles.

Its reaction was acid for litmus and congo red, and the total acidity 50 and combined 10.

Physical examination was otherwise negative.

The history of gastric trouble fifteen years before, which was very suggestive of ulcer, together with the evident dilitation of the stomach, visible peristalsis, and the vomiting of large quantities of fluid, justified,

I thought, the diagnosis of pyloric obstruction for which I recommended a gastro-enterostomy.

This was refused, and a few stomach washings with regulation of the diet gave prompt relief. He gained fifteen or twenty pounds and is now, three years later, enjoying good health.

Case IV.—Mrs. D., aged 51, referred for diagnosis May 25, 1912.

Family history unimportant. She had been treated for "heart disease" off and on since 1904. She has had some pain in the joints but it has never confined her to bed. Had an attack of "bladder trouble" with painful urination and some blood in the urine several years ago.

Present difficulty began in August, 1911, with pain and oppression in the chest and some shortness of breath.

Similar attacks followed at irregular intervals of a few weeks and lasted a few days.

In April she had an attack of pain in the left side of the abdomen, with chill and repeated vomiting, accompanied with painful and frequent urination.

Since then she has had frequent rigors, fever and sweats, and loss of appetite. She had lost about thirty pounds weight, nine of which had occurred in the last two weeks.

She had some shooting pains in the back, and there was tenderness over the entire abdomen, slightly more marked in the flanks.

A sharp blow over each kidney seemed to cause more pain on the right side than on the left.

The temperature was 102.4 F. and the pulse 112 and irregular. The systolic blood pressure was 130 m.m. Hg.

The chest was negative except for the cardiac arythmia. Gynacological examination showed the uterus displaced backwards and to the left and adherent. Blood examination showed, Hæmaglobine 100 per cent., reds 4,900,000, whites 6,400 of which 10 per cent. were lymphocytes, 80 per cent. polymorphoneuclears, 6 per cent. large mononeuclears, 1 per cent. eosinophiles, and 2 per cent. transitionals and indeterminates.

A specimen of urine by sterile catheter, was cloudy, acid reaction, sp. gr. 1012, albumen slight, and no sugar.

It contained numerous slightly motile bacilli which cultures showed to be colon bacilli. There was no tubercle bacilli found, but there were a considerable number of pus cells, some red blood corpuscles, a few squamous and transitional cells and a few short granular casts.

An X-ray plate for both kidneys gave excellent details but no stone shadow.

It was evident that a cystoscopic examination was necessary to

determine with certainty which kidney was affected. This was done through the Kelly Endoscope a few days later.

The fundus, trigone and right ureteral orifice were normal. Around the left ureteral opening was an injected and swollen area six or eight m.m. in diameter.

The ureteral catheter engaged with considerable difficulty, but passed easily into the pelvis of the kidney.

In a few seconds a few drops of cloudy urine began to flow from the catheter, in drops but not in jet periods.

This catheter was left in place and the bladder emptied and a urethral catheter left in to collect the urine from the right kidney.

Six milligrams of Phenolsulphonephthalein was given subcutaneously. The right kidney secreted 10 per cent. of this in the first thirty-three minutes, at which time the left kidney began to secrete the dye.

During the next hour the right kidney secreted 13 per cent. and the left 20 per cent., making a total from both kidneys of 43 per cent. in one and a half hours, which is considerably below normal.

The capacity of the left renal pelvis and ureter was 18 c.c., at which volume the resistance gave way and the water, containing considerable pus, returned into the bladder and flowed out through the urethral catheter.

The renal pelvis was further washed out and the diagnosis of colon infection of the left kidney established.

It was thought probable that a kinking of the left ureter from an adherent retroverted uterus had precipitated the infection which was evidently of long standing. The condition was considered a surgical one, but the renal insufficiency with the existing cardiac condition made the case a dangerous surgical risk, and it was hoped by rest in bed and medical treatment to get her in a safer condition for operation.

She was given thirty-six grains of Hexamethylamine daily, cream of tartar lemonade freely, and a full diet on which she gained rapidly, the temperature dropping to normal almost immediately. The volume of the urine increased and became much clearer.

She was returned home with instructions to report in three weeks.

Within about ten days, however, she was siezed with sudden oppression in the chest, dyspnœa, slight cough, and rapid and irregular heart action. There was a very slight rise of temperature, and the urine became scanty and highly colored.

She returned to me ten days later with a consolidation of the lower lobe of the right lung, slight bloody expectoration, a swollen liver, a positive venous pulse, and an absolute arythmia of the heart's action of about 140 per minute. It seemed doubtful whether the pulmonary con-

dition was a pneumonia or an acute infarct, but I inclined to the latter view.

The lung cleared up after an afebrile course of about three weeks, during which time the pulse reached as high as 165, of the *irregularis perpetuous* type.

During this time she was kept on small doses of chloride of ammonia, squills and digitalis, and an ice bag over the heart.

The urine throughout was of low specific gravity ranging from 1006 to 1010 and contained small amounts of pus.

While it seemed very evident that the cardiac and pulmonary conditions were secondary to the infection of the kidney, yet, to add to the already extreme condition of the patient, the shock of a surgical procedure seemed extremely hazardous.

Accordingly, a period of waiting was deemed advisable, and during the following ten days the urine became clearer, the heart's action regular, so that she was able to sit up a part of the time.

At the end of this period, scanty urine, a slight rise of temperature, with the immediate development of tachycardia and arythmia forced us to undertake the operation, notwithstanding the extreme surgical risk.

The twelfth rib was resected, the kidney delivered and the pelvis incised and explored with the finger.

A number of the papillæ were breaking down, but there was very little free pus in the pelvis.

The kidney was incised on its convex border, and a large sound passed down the ureter into the bladder without difficulty. Portions of the cortex still appeared to be able to perform considerable service, and the pelvis was drained with a rubber tube and iodoform gauze. She left the table in good condition, and continued favorable for three or four days when symptoms of a subacute uremia developed from which she died a few days later.

A microscopic study of a section of the kidney removed at operation, confirmed the diagnosis of *diffuse suppurative nephritis.*

There was one symptom complex in the clinical history of this case which has been of great interest to me, viz., the tachycardia and cardiac arythmia. An examination of the heart between these attacks revealed nothing abnormal, unless it was a slightly snappy aortic second sound.

These attacks set in suddenly, were not associated with pronounced dyspnoea, always appeared when the urine became scanty and high colored, and were generally associated in their beginning with slight rise of temperature.

The patient had noticed these for months, they had come on sud-

denly, sometimes instantaneous, and often, she assured me, disappeared as suddenly as they came.

These, I believe, were due to pneumogastric reflexes induced by infection "flair ups" in the kidney.

They were benefitted in a few instances by atropine, which, as is well known, paralyzes the end organs of the vagus in the heart.

Digitalis, however, seemed most effectual, probably by depressing the irritability of the cardiac conducting system. Pressure over the vagi in the neck had no effect. They were, undoubtedly, closely related to paroxysmal tachycardia.

It is true that the study of this case did not prevent the lethal issue, but it certainly afforded a better foundation for a judgment of the risk incurred in operation, and I believe that as safe a period was selected, as could have been done during the time the case was under observation. The history of the case suggests that a pyelitis had existed for, perhaps, years, and that the renal tissue had been infected for, at least, many months.

The diagnosis was difficult, in fact, could not be made with certainty without a cystoscopic examination, nor could much idea have been formed of the functional capacity of the kidneys without ureteral catheterization and some functional test.

The development of uremic symptoms in this case emphasizes the importance of the Penhol-sulpho-nephthalein test.

Case V.—Louis G., aged 64, was referred to me in December, 1911.

Family and past history unimportant. Present complaint began in the spring of 1911, with a rapidly growing tumor in the right axilla, which was removed by operation the last of June. About this time a similar mass appeared in the left axilla which was also operated on a month later.

Similar masses soon appeared in the cervical and inguinal regions. There were some chilly sensations, and slight fever during their development.

When he came under my care he was well nourished, but appeared weak, and had some hoarseness and shortness of breath. He coughed considerably, especially at night, and expectorated some tenacious sputum, sometimes slightly streaked with blood. The temperature was normal, pulse 94, and blood pressure 140 m.m. Hg., urine negative.

Physical examination showed slight retrosternal dullness, some suppression of the breath sounds over the middle of the left front, with, at times, wheezy expiration.

The liver and spleen were not enlarged.

The cervical, inguinal, and axillary regions showed marked en-

largement of the lymph glands, some masses in the right cervical being almost as large as a goose egg, not adherent to the skin nor fixed to the deep fascia.

Blood examination showed Hæmoglobin normal, reds, 5,500,000, whites 6,200, differential whites, small lymphocytes 21 per cent., large lymphocytes 16 per cent., polymorphoneuclears 45 per cent., large mononeuclears about 10 per cent., eosinophiles ½ per cent., and 6 per cent. of transitionals and indeterminates.

Repeated examinations of the sputum for tubercle bacilli were negative, and the Wassermann serum reaction likewise.

Diagnosis: Pseudoleucæmia or Hodgkin's Disease.

Treatment: Fowler's solution to the degree of tolerance, and X-ray of the glandular enlargements with a low tube twice a week. The improvement in the glandular condition was very prompt, the cervical enlargements almost completely disappearing within a month, and the inguinals a couple of months later. The pulmonary condition remained about the same. At irregular intervals of a few weeks there was "recurrent fever" with slight temporary glandular enlargement of the Ebstein type.

On May the first, the patient developed an acute pneumonia, beginning in the middle right lobe, later involving the lower left, with a temperature ranging from 101 to 104 F. and pulse 120 to 136.

A differential count of the whites on the fifth day of the disease showed only 12 per cent. lymphocytes and 77 per cent. polymorphoneuclears.

He died on the tenth day without a crisis.

The above histories serve to emphasize the fallacy of hastily submitting this class of cases to operation without a serious attempt at exact diagnosis, and, indeed, often, a period of preliminary preparation for operation, which is so essential, in many cases, to a successful issue.

The patient who harbors some type of chronic infection, with occasional acute exacerbations can be much more safely handled during an interval than during one of these acute flair ups.

The careful surgeon will not undertake a deliberate aseptic operation, like the amputation of a breast or an exploratory laparotomy, during the co-existence of an infection of the middle ear, or tonsilitis even though these be of a seemingly mild grade.

He will not undertake bladder operations in the presence of urinary sepsis, nor remove a prostate where a pair of kidneys have been working against an eight or ten ounce residum of urine, knowing full well the hazard of such procedures without preliminary treatment.

He will not submit his hyperthyroid cases to operation without

that period of rest and medical treatment which so often converts a surgical impossibility into a reasonably safe undertaking.

Briefly, he will not allow his cases to arrive on a late train after a half day's railroad journey, receive a casual and perfunctory examination before bed time, and leave the working out of the clinical history to an overworked interne, with instructions to send him "up for operation at eight-thirty the following morning."

On the other hand, he will give to each of this class of cases the benefit of modern diagnostic methods, and the individual study which his case demands, to the end that the best interests of the patient may be subserved and the science and art of medicine and surgery advanced.

SEPTIC SORE THROAT.

L. P. Hamburger, Baltimore (Journal A. M. A., April 13), gives an account of an epidemic of sore throat that occurred in Baltimore last February which was similar to those which were noted about the same time in Chicago and earlier in Boston. The organism was evidently the same as that described by Davis and Rosenow in Chicago. A significant feature of the Baltimore epidemic was the large number of severe cases occurring about the same time, which were traced to the same milk supply. After reform in the dairy methods the new cases, which were not so severe, did not occur in such frequency. A longer period and higher temperature were used in the pasteurization of the milk, which in fact had been omitted for some days at the end of January and the beginning of February on account of repairs being made in the building in which it was performed. The source of the presumedly infected milk which comes from many Maryland farms, is still to be determined, and investigation is still being carried on. In contrast to the Boston epidemic of 1911, in which adults suffered most, children were the most severely affected in the Baltimore epidemic. The sore throat was of less consequence than the constitutional symptoms. Besides the enlargement of the cervical glands, which in adults led to an abscess, there was vomiting and abdominal pains, marked fever and prostration. In fact, a large and persistent bubo was a better prognostic sign than a small one, which disappeared quickly. Peritonitis was the cause of death in most fatal cases. Other complications observed were otitis media, peritonsillar abscess, suppuration of the cervical lymph-nodes, erysipelas, tenosynovitis, arthritis, edema of the eyelids and nephritis.

CITY MILK SUPPLY.

O. P. THOMPSON, M. D., WATERLOO, IOWA.

Mr. President and Members of the Austin Flint-Cedar Valley Medical Society:

I was privileged to be present at the last meeting of the Iowa State Medical Society and hear the inspiring address of the retiring President, Dr. Littig.

One statement made by him impressed me markedly. It was to the effect that preparing and reading papers before societies of this sort prolonged one's youth, and I have arrived at an age when one very much appreciates the necessity for this, thereupon resolved to embrace every opportunity of this kind, and when your Secretary on the following morning approached me and asked that I read a paper at this meeting, consented with alacrity. I surmise, however, that this panacea is about on a par with the use of buttermilk for the same purpose. Again my experience as an officer of a county medical society taught me that while doctors will agree to write papers, that when the time comes for the meeting they are apt to have very urgent business elsewhere. And again, I realize the fact that you of the medical profession need some coaching along milk lines, from the fact that the most unsanitary, dirtiest dairy that I have inspected during the last two years, was furnishing milk exclusively to a leading city hospital. And we need the earnest assistance and co-operation of all the people and particularly of the medical profession in this work along the line of an improved milk supply. Sanitation, as you realize, is a relatively new science and particularly so as regards milk, the first medical milk commission having been organized in 1893. Now it took a generation to make clean surgeons, members of one of the so-called learned professions, after the germ theory was evolved, how long will it take to make clean dairymen?

Dr. Abraham Jacobi in the president's address before the A. M. A., recently, drew a very strong indictment against the mothers and doctors of this country. He made the statement that in women there is no such thing as absolute absence of milk secretion, that there is rarely a woman who cannot nurse her infant and that "every case of death from lack of breast milk should cause a trial for homicide against a doctor or midwife or mother." This being granted, I, for one, am ready to plead guilty to the sin of having in a measure encouraged the artificial feeding of infants or rather not being sufficiently insistent that the mother persist in her efforts to nurse her offspring. (I take it that each one of you has carefully read the President's addresses referred to, and I would suggest that you reread them upon your return home.) If this statement of the doctor's is a fact, the milk question would be

greatly simplified if you, as doctors, would do your whole duty and insist on the mothers nursing their babies, for the reason that as far at least as the one great plague is concerned, viz., tuberculosis, the danger to adults in the use of milk from tuberculous cows is practically nil, as well as the summer diarrheal disorders, caused by unsanitary milk.

Cows' milk is often spoken of as perfect food. It is such for a calf having four stomachs, but not for the human infant with barely one, and that, figuratively speaking, merely a wide place in the road. In our law milk is defined thus: "Milk is the fresh, clean, lacteal secretion obtained by the complete milking of one or more healthy cows * * * * * etc.;" and the milk dealer is a "person selling milk from a vehicle or store." Iowa is fortunate in that she is made up of small cities, towns and villages, as the larger the municipality the more complicated becomes the question of the common milk supply. This is recognized by our legislature, from the fact that the dairy and food commissioner is empowered to appoint in cities of 10,000 or over, only, local state milk inspectors. We have at this time eighteen such inspectors. Our laws are as good as those of any other state in the Union, but from my own observation as to cities, I must say that laws without adequate and intelligent means for their enforcement accomplish less than nothing. I visited one city in a neighboring state having the ideal city milk ordinance where the milk, as a whole, was much poorer than any city in Iowa, and in our own state the city having the best market milk upon my initial visit was one in which milk was not mentioned in any city ordinance. I do not, however, cite this as an argument against city milk ordinances. In the first city, inspection was not efficient, and in the latter it was amply so.

Milk is one of the most universally used articles of diet, the average consumption in Iowa being probably about one pint per day per capita. Peculiar in that it is adapted to the needs of people of all ages and stations in life, it must be used while fresh and the laymen being incompetent to judge of its purity, in color white, the emblem of purity, yet often as found on the market filthy indeed. While there is yet much room for improvement, I am convinced that Iowa, as a whole, is being served with a much better milk today than ever before. In recent years but few cases have been found by our inspectors where preservatives are used, whereas, only a few years since the use of formaldehyde was quite common, and the percentage of bottled milk over bulk milk on the market is steadily increasing.

You who are schooled in sanitary science are appalled at the ignorance of the laymen in this science. I am convinced that 90 per cent. of the dirty milk sold is so from the fact that the producer does not know how to produce the clean article, rather than that he is wilfully dirty.

Hence, I wish to emphasize the importance of education of the dairymen along these lines. The cow gives clean milk and when it is dirty it should be charged to the failure of human intelligence, and milk is clean proportionate to the intelligence, cleanliness and conscientiousness of the man beneath the cow. As a class the dairy farmers are among our most intelligent and progressive people, and while we often quote the old pun about the milkman whose most profitable cow is the one with the iron tail, the milkmen are above the average in mankind, in honesty and integrity. Hence, any move for the improvement of the milk supply, must be along the line of the education of these men. To the fact that sanitary milk cannot be produced in dark, damp, unventilated barns; that milk once dirty always dirty, that it should be cooled immediately after being milked, and particularly to the fact that flies should not be allowed to wash their numerous and proverbially dirty feet in it. I verily believe that if the use of the milk strainer was prohibited that on the whole the quality of our milk would be improved, as many times do dairymen say to me that they know their milk is clean because they strained it twice or three times.

As a rule, our dependence for improved methods must be put in young men, as after a man's hair becomes the color of my own, and he has been milking cows for a score of years or more, he is apt to resent any insinuations that his way is not the best way, like the woman who when remonstrated with for allowing her baby of a few months of age to chew a piece of bacon, remarked: "I ought to know how to care for babies as I have buried eight."

Our department is endeavoring to do what we can along educational lines and trying to choose as inspectors men who are capable of acting as instructors rather than prosecutors. The compensation for this work, however, is fixed by law and inadequate, and the men accepting this work for us must be, in a measure, philanthropists.

I recognize the fact that in a large sense the question of clean milk is a public health question. We have at the present time as local milk inspectors four M. D.'s and two veterinary surgeons and hope to be able to fill the ranks with men from these professions. But we must also realize that there is an economical side to dairy business and the most efficient way to induce the milkman to produce a sanitary milk is to increase his profit by furnishing him a market for such and whereby it may replace the inferior sort. I speak advisedly when I say that sanitary milk cannot be produced with the average Iowa cow, delivered and sold on the markets today for less than 8 1-3 cents per quart, and at this price it is the cheapest of all foods. From personal observation I say that 85 per cent. of the market milk in Iowa is sold for a little over 7 cents a quart (or 14 quarts for a dollar) or less. Over 14 per cent.

at 8 1-3 cents per quart (12 quarts for $1.00), and only a fraction of 1 per cent. above this price. It might occur to you that a milk inspector would be an easy man to find, but the facts are that he is not. He must be a man who has some practical knowledge of the dairy business, and can handle men and be able to give a reason for every requirement he may make.

Each of these city milk inspectors is supposed to take up samples of milk and cream from the wagons of dealers in their respective cities about four times each month and a written report of their work is made to and kept on file by the dairy and food commissioner. These inspectors examine the wagons and utensils as to cleanliness, test out these samples for preservatives or adulterations and percentage of butter fat. This work I feel is quite important and does accomplish some considerable good, as in cities where inspection is for any reason discontinued for a time we find on taking up the work again that the milk has deteriorated markedly, particularly in percentage of butter fat, and I believe a temperature standard should be established and the sale of milk above 50 degrees F. forbidden.

We now have published in Iowa a dairy paper second to none. This department to a limited extent and the government in large numbers, issues bulletins pertaining to the milk question in all its phases, and we are now using the government score card, visiting as many of the dairy farms as possible and going over them point by point with the milkman and thus pointing out to him where his system is weak. I have in this capacity visited many dairies, the most marked defects found being unclean stable yards, lack of light and poor ventilation in the barns and poor facilities for efficient cooling of the milk.

The average score of dairy farms in Iowa is less than 45 points out of a possible 100. This is quite low but not so low as that of the dairies supplying milk to Chicago, which is nearly five points less, and the dairies supplying the city of Washington score an average of only a fraction over 43 points. While the use of the score card system is of recent date, all familiar with its use agree that by the proper use of this system the conditions of the dairies so scored do improve often quite markedly from one to a subsequent visit of the inspector. By its use each particular item is gone over in detail and record made of conditions found, and while some might be inclined to give undue importance to some one thing this method gives to each item its proper and due weight and no more. In Des Moines all dairies were scored some two years since for the first time, and we have just finished up scoring them again and find that the average increase of the scores of these dairies has been in this time 13 points (from 46 to 59).

I would also call your attention to condensed milk. This product

certainly has its uses and legitimate place, but not in the feeding of infants of Iowa or on the tables of Iowa, the greatest dairy state in the Union. It seems to me a good comparison to say that using canned milk in Iowa is like eating canned corn when roasting ears are ripe. And the Connecticute Agricultural Experimental Station has recently analyzed all the leading brands of condensed milk and finds that at 12 and in some instances 25 cents per quart market milk is as cheap.

Quoting from Dr. Jacobi's address: "The mortality of babies below one year has been found—not estimated—to be, for the exclusively breast-fed, 6.98; for those fed artificially, 19.75. Boek found that of infants who died of intestinal diseases, 61.4 per cent. were fed on flours (proprietary foods); 24.3 per cent. on cow's milk; 1.4 per cent. on breast-milk. Dr. Jacobi further states that during the siege of Paris while the general mortality was doubled, infant mortality was lowered 36 per cent. by reason of the fact that they had no food other than their mothers' milk. Prinzer also tells us that in Berlin in 1895 and 1896 the mortality from intestinal diseases among breast-fed infants was 7.09 and artificially fed 38.06. I would impress upon you this fact; the natural and ideal food for the infant mamal of whatever species, be it man, horse, cow, dog, cat, sheep or porpoise is the milk of its own mother, and in the economy of nature, milk was never intended to see the light of day, and that the best artificial food for the human infant is cow's milk.

The Dairy and Food Commissioner is given great discretionary power in that he may refuse to grant or may revoke a license to sell milk. Being a discretionary power, we are exceedingly careful in the use of it, for should we use it indiscriminately or unwisely the next Legislature would undoubtedly take this power away from us.

Ethically we should refuse to grant licenses to any but strictly sanitary dairies and all cows reacting to the tuberculin test should also ethically be slaughtered as worth less than nothing. But are these measures expedient? Assuredly not, and when ethics and expediency come into contact there is never any doubt as to the final outcome and the rule of expediency.

Some one has said that the greatest sin of the American mother today is "her ignorance in the use of cow's milk for infant feeding and her ready acceptance of the proprietary foods." Are you, as her medical advisor, entirely innocent? Have you been sufficiently insistent that she nurse her baby? Have you, when consulted as to artificial feeding, simply advised that they try cow's milk or some one of the proprietary foods with no further instructions as to how it should be used? Or possibly you have given them instructions as to how to modify cow's milk with the idea that milk is milk, not taking into consideration the

fact that the milk of a Jersey cow might contain 6 per cent. butter fat, while a Holstein cow might give milk of only 3 per cent. Certainly a modification table suited to the one sort of milk would not be proper for the other.

As to these proprietary foods, they are, I believe, successful proportionate to the amount of cow's milk recommended to be used with them and when we consider the cost in dollars and cents, milk at 15 and with most of these foods 50 cents per quart would be as cheap a food.

It is appalling the amount of these foods that are used and largely by the very class of people who patronize the milkmen who will give the largest number of milk tickets for $1.00 and complain when the market milk goes up a fraction of a cent.

Time permitting, I should like to have treated the question of certified milk, the characteristics of the milk of the different breeds and individual cows and the care of milk in the home. Suffice it to say, there is no certified milk sold in Iowa today nor can there be, legally, until the organized medical profession form medical milk commissions.

There is great variation in the composition of the milk of the different breeds of cattle and in individuals of the same breed not influenced markedly by the feed consumed by the cow. Hence the quality of milk is a breed rather than a feed question.

The medical milk commission of the city of New York visited 4,300 homes and found that milk was improperly taken care of in 4,100 of these.

I will close for the reason that I firmly resolved that this paper should have at least the one merit, that of brevity.

EPILEPSY (?) FROM EYE-STRAIN.

J. S. Wyler, Cincinnati (Journal A. M. A., June 8), gives the history of the case of a young man, aged 23, who was subject to attacks resembling epilepsy, aggravated by the use of his eyes, which first appeared about a year and a half before he was seen by the physician. There was a premonitory cry, followed by a tonic convulsion, lasting from a quarter to half an hour. He was comparatively normal between the attacks. The attacks had become more frequent and had prevented him from following his occupation—that of a skilled mechanic. Close work requiring the use of his eyes and reading in the evening, had a tendency to bring on the attacks. Correction of the eye defect immediately was followed by cessation of the attacks, and he has been free from them for two and a half years. Wyler has never observed one of them personally, and therefore cannot positively assert that they were epileptic, but they were certainly stopped by the refraction.

SOME REMARKS ON THE REMOVAL OF TROUBLESOME TONSILS.*

BY HENRY GLOVER LANGWORTHY, M. D., DUBUQUE, IOWA.

The following remarks have to do solely with the question of the actual removal of tonsils and purposely omit any extended reference to causation of symptoms with which all physicians are familiar. Indeed, the entire subject of symptomatology may be briefly dismissed by saying that tonsillectomy in the main is performed for the relief of three general classes of cases. (a) Frequent sore throat and the prevention of quinsy. (b) Chronic throat catarrh where there is troublesome pocket formation in and about the tonsil causing excessive irritation, secretion or the formation of concretions. (c) The ordinary run of enlarged tonsils in children which cause impediment in breathing, or swallowing and usually associated with adenoids.

In taking up the removal of tonsils it is pertinent to inquire: First—What really constitutes the removal of tonsils, and second, are we not substituting the word for the deed many times when we speak of tonsils as having been removed in all of our cases! I think it is a fair statement of fact to say that up to three or four years ago, tonsils were not taken out as thoroughly as they are at present. In other words the situation was somewhat analogus to that of preappendix days so far as knowledge and action was concerned. Twenty-five years or so ago a diagnosis of inflammation of the bowel, or peritonitis, and inadequate medical treatment was the best surgery as was then known. Somewhat the same condition, but relating to specialists and the tonsils has been in existence not so long since. Men, who were considered competent throat specialists and were moreover, really expert men in their lines, were not always removing the tonsils, when they spoke of the average case as having had the tonsils removed. To-day, these same physicians not only have changed their ideas and technique along this line, but what is more important are this year and this week doing thorough and satisfactory work. To many of us the situation has suddenly presented somewhat the nature of the cancer picture. Just as we expect a recurrence of cancer, so can we expect a continuance of some of the troublesome tonsil symptoms if they are not removed thoroughly, and by this I mean the entire organ as contained with the sinus tonsillaris. When I see a throat case previously operated with the history of the throat trouble continuing, and observe a good deal of honeycombed tonsil plastered on the lateral pharyngeal wall behind the anterior pillars, I do not and cannot honestly find fault, but tell the

*Read before the Jo Daviss County Medical Society at Elizabeth, Illinois, April 25, 1912.

patients or parents that they have most of the tonsil removed, all at least as was thought necessary at that time, but that even the little left in their particular case is still causing trouble. This is an honest statement and leaves us able to meet our responsibility with clear eyes. Tonsillectomy or the complete removal of all of the tonsil is not an easy operation for a great many reasons. First of all the tonsil must be well dissected almost completely around so as to free it from the sides or it is impossible to slip a snare over the organ and satisfactorily enucleate. Just the past year has brought home to the writer the fact that it is almost impossible to dissect the tonsil carefully and get it ready for removal without spending considerable time at this vital preliminary work. Also it is becoming more evident every day that occasionally it is most difficult to properly dissect out tonsils in young adults under a general anesthetic. Young children should, of course, be given a general anesthetic. Gagging, uncontrollable throat movements which tightly stretch the pillars over the tonsils, excessive blood obscuring the operative field and a flat position of the body all conspire at times to make the tonsil operation a trying one. Personally I am finding myself doing more and more of these operations under local cocaine anesthesia where possible, being careful to cocainize the regions back and under the pillars by means of angular swabs as I work along. By spending most of the time on dissection, and taking out the tonsil only when it is ready with a wire snare, I feel that my technique is materially improved. A vacuum suction apparatus to constantly suck out saliva and blood may also be used to great advantage in these cases. At present one difficulty I have experienced with such an apparatus is that it occasionally gets out of order, but this will be remedied. Before one finishes a case in any instance it is highly necessary that the assistant pull the anterior pillar back, while we both make sure that the former side of the tonsil presents a clean bed showing only the lateral pharyngeal wall.

Owing to the attention which this operation is being given it is safe to add that from now on tonsils are going to be entirely taken out no matter how much it may cost in equipment, assistant fees, etc., and no matter if it be necessary to re-operate a second time if for any reason it is found unwise to complete the operation when first starting out. The day of the $25.00 tonsil operation is past. Physicians cannot do good work, especially a piece of work which often requires an assistant when done under cocaine and an etherizer, or even an assistant if done under a general anesthetic, without being paid a good price. The profession as a whole is going to regard the removal of tonsils as a more serious piece of business than formerly, and will realize then and then only that the results will be far superior than they have been

even in the past. The operator who cannot look back at some unsatisfactory work and has not had to repeat an operation once or twice, is one who had done little throat work. Fortunately, however, even the failures with their evident reasons often help us more than marked successes.

Some of the chief reasons why partial decapitation of the tonsils cannot be satisfactory in the average case are as follows: First of all, the crypts of the tonsils are little more than deep fissures which frequently extend entirely through the organ to the outer side or may open into large communicating spaces. Therefore, anything short of complete removal still leaves crypt fissures to catch food, lodge bacteria and cause continued irritation by the presence of septic material at the bottom. Second—The tonsil does not completely fill its triangular bed as there is a large space above and behind the tonsil, at the sides and, in fact, more or less all around the outside of the organ, which spaces continue to exist unless purposely eradicated. Third—As some of the crypts open on to surface regions of the tonsil covered by such structures as the anterior pillar in front, plica tonsillaris below, palate margin above, etc., it is evident that the trouble in these places is not even touched unless attention is directed to them. Fourth—As regularly two-thirds of the tonsil is concealed and out of sight, it is almost folly to attempt an opinion as to its possible pathogenic factor without the use of a bent probe for exploring crypts and pockets.

THE PROCREATIVE REGULATION OF DEFECTIVES.

Following the statement of the results of a study of the defectives in the New Jersey State Reformatory, carried on by himself according to the Binet system, G. L. Orton, Rahway, N. J. (Journal A. M. A., June 29), discusses the propositions that have been made to prevent the increase of the conditions. According to an investigation by Dr. Goddard, superintendent of the Vineland School for the Feeble Minded, almost without exception a history of hereditary feeble mindedness was obtained in the hundreds of cases he examined. A similar work is being carried on by the field workers at the State Village for Epileptics at Skillman, N. J., and a like study was made as to the heredity of criminal tendencies by Mr. B. H. Crosby. With all these facts before them the legislature at the session of 1910-1911 passed Assembly Bill 362 authorizing the operation of vasectomy for defectives and of orchotomy for rapists' crimes. Objections have been raised to these bills which are answered by Orton, who thinks the subject deserves the careful study and consideration of physicians.

A FEW THINGS EVERY DOCTOR SHOULD KNOW, REMEMBER AND PRACTICE, WITH REFERENCE TO CANCER, TUBERCULOSIS AND PUERPERAL SEPSIS.

In the minds of some it may be difficult to select the few things that every doctor should know all the time, remember and practice them, but when I mention my list, a few will disagree with me. For a doctor to know everything is impossible, so we will stick to the few things of great importance.

Now what I want every doctor to know, is about the early Cardinal symptoms of Cancer, Tuberculosis and Puerperal Sepsis. If that is done well, many a life will be saved, much sorrow and suffering obviated, and happiness and sunshine take their places. In conversing with my colleagues in the state and elsewhere, I frequently have been asked if I thought such admonition was needed by the profession, I was compelled to answer with emphasis in the affirmative.

While we have better educational facilities than formerly, and every medical man should know the things of which I will speak, it is true that there are still too many who have never learned this lesson, or are indifferent or careless of the welfare of their patients, and the honor of the profession.

No one, no matter what his calling, has need of a conscience coupled with the necessary knowledge, as has the family physician, who in the old and trite expression, gets to see the patient first. There is a vast amount of literature of which he can avail himself for information on all these necessary things if he but will. But that is the rub, will he, and does he, and if not how can we make him do it, or put it in his way so he can't help but have it rubbed into him, so he must know and care and act on it. Those of you who have read Osler's Aequinimitas, or his Alabama Student, know how emphatically he talks about the enormous ignorance of the rank and file of our profession. Now my plan is to see if I can get some of the leading, as well as some of the misleading medical journals to devote a page or part of a page at least once a month or periodically at certain intervals, to publish the symptoms of these life-destroying maladies, in so graphic a manner, as to burn them, as it were, into the minds of those who need it, so deep, that they can never be forgotten as long as they live. Such a course were more useful than whole pages of some of the medical drivel that literally fills our Journals without any use whatever.

This would also catch the new classes as they graduate from our colleges, and teach them a few of the things needful forever.

For instance, as to the vast amount of useless literature published in medical journals, how many times have you seen Metcalf's formula

for Sciatica printed in the different journals you read? I will hazard the guess you see it on an average every month in your reading. And how many cases of Sciatica has it ever cured? Not one in 500. And still the medical papers will continue to print it and will keep on doing so for the next ten years. Space must be filled that is not sold for advertisement. Now if we could get all our Journals to print in scare-head lines once a month, or every other month the classical early symptoms of cancer and tuberculosis until every doctor could know and remember them and recognize them when he meets them, we would do an untold amount of good to the unfortunate victims of these dreaded maladies. While Tuberculosis is now on the decrease, and we hope yet to conquer this destroyer of life and happiness, Cancer is rapidly on the increase, especially among women, our wives and mothers, and is standing like a specter at the doors of our advance civilization, and with ghoulish glee asks for its victims, the fairest of our land.

So far, all cancer research has been fruitless, as far as discovering the real cause. That it is some microbe of some kind, so subtle and small, as to escape our present technic, and microscopes, is practically accepted, but this we may have to give up in the future. We know little else of Cancer to-day except that what we formerly thought we knew as to heredity, contagion, cancer houses, etc., is all foolishness, and according to the Chinese proverb we know that we don't know, and that is one long step in advance. However *this* seems at least clinically proven, that all cancers are at first local, and if eradicated before metastasis takes place, operation is usually successful in the majority of cases. If this proves true, then it is of vast importance to make an early diagnosis. Any nodule occurring in the female breast, is in the vast majority of instances, especially if in women near the menopause, Cancer, and should be at once radically removed. This should be done with the knife, by a surgeon competent to remove all the adjacent connective tissue and all the accessible glands. The same is true of nodular or hard growths of the lips or face in men, which should be removed early and fully, not with a little V-shaped incision, but with a thorough dissection down into the region of the throat, and neck triangles. But the ones I especially want to make my plea for, are the many women who are victims of uterine cancer, women who have borne children, most of whom have sustained cervical tears incident to child births of varying degrees of difficulties, those who, after menopause has set in, have repeated hemorrhages, usually innocently, helplessly, and ignorantly called by the careless attendant, change-of-life troubles, which they say, will soon as the change has been completed, stop. Meanwhile they treat or mistreat these cases by tamponage, medical styptics, ergot and other worse than useless methods, until the poor victim is so far

in the thralls of uterine cancer, that all operative procedures are useless, and she wears away her life in expectation of death, fully equal to the condemned criminal over whom the death watch has been set till the day of execution.

In view of the rapid increase of uterine cancer in the class of women mentioned, is it too much to ask from the family physician to acquaint himself with the principal signs of this disease, in order that he may save useful lives? Our pathologists have long ago sounded the notes of warning about these irregular bleeders, and told doctors to be aware of cancer in practically all of these cases. Some, true enough, are Fibroids, but you also have learned the lesson that many of these finally undergo malignant degeneration, if indeed they were not cancers in the beginning, with a fibro-adenomatous face.

William B. Coley, of New York, says the rate of increase of cancer since 1868 in males has been 22 per cent., and in women, 44 per cent. In 1909, in England, where statistics are kept, there were 34,053 deaths from cancer, within a few thousand as many as from Tuberculosis. At this rate in a few years more the deaths from Cancer will exceed the deaths from the White Plague. In Japan, reported by Soto, out of 6,430 patients, over 33 per cent, had uterine cancer.

Such men as Coley, Paget, Bilroth and many equally as good, assert that a very large per cent. of all cancers are due to traumatisms or local irritations. This is especially true in the working classes who are more prone to cancer than the leisure class, because they are more subject to irritation.

Of this cause the cervical part of the uterus is especially subjected. Tears, scars, ulcers, fissures, speak loudly for the cure of all such conditions long before malignant troubles make their appearance. Victor Bonney says out of 1,876 Cancer patients examined in the Middlesex Hospital Cancer Research Laboratory, 1,796, or all but 80, were married. Only 9 per cent. of these did not bear children, and clinically a case in an undoubted virgin was practically unknown. Thus we see from this, as well as from other well-known instances, that the relationship between marriage, childbirth and malignant cervical disease should excite our keenest interest and attention. Again we observe that cervical cancer is many times more frequent than that of the body, which shows the role played as to the matter of irritation or traumatisms. Therefore, we should, as far as we are able to induce the patient to do so, repair all vaginal and perineal tears, to keep the vulva closed and prevent external infections; also treat all cervical tears, ulcers, tags, fissures and all other lesions, and that cannot be done by inserting daily or tri-weekly glycerin soaked tampons, "Via-Vi" or "Orange Blossom" into the vagina, an already over-abused canal, but we can do effectual

work only when the work is done in an antiseptic surgical manner as the demand of the particular lesion needs. The patient should never be made the victim of some doctor's cupidity, but deserves the best only, regardless of the doctor's interests If the physician whom she consults cannot give her the treatment she should have, he should refer her to one who can or one who can direct him how it should be done if it is something a man of his experience can do and do it well.

In my professional life I have sacrificed my financial interests many a time, for the benefit of my patients and referred them to some one whom I thought better qualified to treat a particular case, than I was. The loss is but temporary, for what you lose for a time, you gain in the admiration of your patients, that will get you other patients, and best of all you maintain your self-respect, which is no small asset. Now as to the symptomatology of cancer in its early stages. It has been stated by men of high repute that as a rule a good clinician can diagnose cancer almost as certainly as the expert microscopist, as it is only rarely that we can obtain material for microscopic examination. I do not mean to cast any aspersions upon the microscope, by no means, it will always be the sure arbiter between a good clinical opinion and the absolute truth in the hands of the expert. This should not, however, make us careless to bedside diagnosis, and a disregard of prominent and often unmistakable clinical symptoms, which, when carefully interpreted, will lead us to truth. These findings should, as far as may be, be further verified by the laboratory experiments, and all other means available. When one does such things, my paper does not apply to him. You may take my experience for what it is worth to you, but I have not often failed, after careful examination to make a diagnosis, when opportunity was offered in time.

Now what are the chief symptoms that I would so emphatically bring to your notice?

They are these in Uterine Cancer: When a woman in the beginning of the fifth decade of her life complains of vaginal disturbances, unnatural flow, either white or colored, especially when this appears at irregular intervals, or increased quantity, or if the woman has missed her menses for a year or two, the longer the interval, the more suspicious, and has a return flow, no matter how well she may feel, she deserves a careful examination and should be placed under continued observation by a competent physician, with the one object in view, namely, to make a diagnosis of uterine cancer. I do not intend to make as close diagnostic investigation as our books on Cancer or those on Diseases of Women make, because the man who goes into it that carefully does not need my admonition. Just enough to arouse the suspicions of the most casual observer and I have done a great deal to

save human life. Had I the means and a force like the German Government behind me with its means and willingness, I might adopt the methods of Winter of Germany. He had numerous pamphlets printed setting forth the prominent symptoms and had them sent out broadcast by the government authorities, to the people as well as to such doctors as were in need of them, and thus accomplished a great deal. But we have no such aids from either our state, or from our national government, so we must content ourselves with what we may. If we could reach the medical profession we might feel content.

Now as to Tuberculosis. We have a great many microscopes as well as pianos among the people, but alas, too few who can play or practice the needed microscopical technic to prepare specimens early enough to make a diagnosis worth while. The many men now in our country such as Trudeau, Pottenger and the many pathologists are competent enough for all this, but you know they say that if we wait till the tubercle appears in the sputum so as to make sputum smears for discovery by means of the Ziel-Nielson or Gram stains, it is in most instances already too late to offer the patient much in the way of a favorable prognosis. And even then, too many doctors disguise what they find, or hide their worst fears from the patient, for fear of scaring him, by saying, "you have some stomach trouble," or more frequently that he has "bronchial trouble from a slight cold, which must be treated or it might run into something worse." If you have the slightest grounds for such a course tell your patient frankly with all the earnestness at your command, that you fear he has tuberculosis and he must put himself at once in proper condition for vigorous treatment. Treat him at home if you are competent, if not refer him to some one who can, or if best, to a sanitarium, or to some climate suitable to the case. But be sure you do not deceive the sick one any more than if you found a rattlesnake in his yard to tell him you saw a toad or a frog there, which if in the future you thought best, you would kill some time. When a general goes into battle he were a fool if he did not try to find out the strength of the enemy. So a patient with consumption, should know the worst, so he can prepare himself for battle.

It is a false idea of mercy to deceive a patient with tuberculosis and tell him as a patient of mine last spring was told by two of his former physicians, that he was "chock full of malaria." I told him he was far along in consumption and what was done must be done at once and recommended him to a sanitarium.

Now what symptoms should put us on our guard so as to tentatively diagnose tuberculosis in its incipiency?

When a patient has some cough, is losing flesh, has indigestion, loss of appetite, feels cold and below par in the earlier part of the day,

has an increased temperature in the latter part of the day, and early night, occasionally a sweat during the night, may have or not, some hemorrhages, cough, no matter how little or how much, yet very persistent, and of all these the temperature A. M. and P. M. variation is the main guide to make us think of tuberculosis. True enough, it may upon closer and repeated examination prove not to be consumption, then what of it? So much the better. On the contrary, if you are not on your guard, in case it should be, and you did not so diagnose, so much the *worse* for your patient and for you, too. It should make you keenly alive to the patient's interests, and if upon a sputum analysis you don't find TBs it is not at all conclusive that it is not consumption, until you have made a positive diagnosis to the contrary. I have frequently made sputum examinations with negative results, when I was positive my patient had tuberculosis by the clinical symptoms, which upon future examination, proved correct. Do not misunderstand me to say that the symptoms I have hastily given is all a doctor should rely upon to make a diagnosis, but merely to put him on his guard, and then investigate until he is convinced that he is right or wrong. Then, when you are reasonably sure you are right, tell your patient your fears and advise him to begin at once an active campaign for a radical treatment. We know tuberculosis is curable when well treated in its incipiency in a tractable patient, under reasonable environments. The mere giving of creasote and Cod Liver Oil is the least you can do for these unfortunates, it is but a small part of the treatment, if perhaps they are of any use at all. But I am not going to speak of treatment, only of early diagnosis, so as to save life, which after a late diagnosis would be hopelessly lost.

It is no use to spare the patient's feelings on a subject that he will find out sooner or later, and when it is too late to do him any good. The proverbial hopeful consumptive, who seldom is willing to admit he has anything the matter with him, must be taught the danger he is in, so he may be brought to a realizing sense of his danger. The importunities of sentimental relatives and friends must be gently, yet firmly, overcome.

Now a few words about puerperal fever, and I will close. It would seem, such is unnecessary, but I am sorry to say, a large experience has taught me differently. So often when I have been called in such cases the attendant was treating what he either called malaria, or a malarial complication that had set in, or the patient had her puerperal period complicated with typhoid fever. When a woman has recently been delivered of a child, either at term or prematurely, is that not enough to make tentative diagnosis? With remarkably few exceptions when you have an irregular temperature curve in such a woman, with chills,

suppression of the lochia, as is the case in most instances, with more or less tympanites, rapid heart action, with more or less vaginal discharge, either ill-smelling, and in the worst cases not attended with any bad odor, you better face the music and call it by its right name, puerperal sepsis, tell the responsible relatives, and ask for the best consultant within reach, and treat it with all the vigor at your command. Don't think you have done your full duty when you have injected some anti-streptococcic serum, unless you are sure you have a streptococcic infection. If you cannot ascertain the nature of the infection then you better use the mixed vaccines or bacterines of staphylococcus, and streptococcus, if indeed your infection is not specific. But I will not say anything about treatment as it does not come within the province of this paper.

Now to make a hasty resume of what I would have every Medical Journal keep in cold print continually till we all heed it, and till the laity even will have it by heart and I am done.

CANCER. If a woman in or near the fifth decade of her life complains of vaginal disturbances, unnatural flow, either bloody or not, especially if this appears at irregular intervals, or increased amount, or if she has missed her menses for some time under the impression that the menopause has been ushered in, and the longer the interval the more suspicious, and she has a return of her flow not once, but oftener, no matter how well she may feel, she deserves a careful examination by a competent physician, with the one object in view, namely, to make a diagnosis of uterine cancer.

TUBERCULOSIS. When a patient has some cough, is losing flesh, has indigestion, loss of appetite, feels cold and below par in the earlier part of the day, has an increased temperature in the latter part of the day, occasionally a sweat during the night, may or may not have some hemorrhages, cough no matter how little or how much, but very persistent, you may hazard the opinion that this patient has all the classical symptoms of tuberculosis, but of all these the increased temperature with its forenoon and afternoon variations, should excite the keenest attention of the attendant.

PUERPERAL FEVER. When a woman has recently been delivered of a child, either at term or before, and at any time within 30 days, usually within the first week of her puerperium, she exhibits a temperature curve of irregular depressions and exacerbations, with chills, and usually suppression of the lochia, accompanied by more or less tympanites, rapid and weak heart action, also more or less suspicious discharges, either ill-smelling or not, the latter the more suspicious, you better at once face the music and make a diagnosis of puer-

peral sepsis, which you will seldom have to revise, and at once bring to bear upon the case all the remedial armamentarium available.

Never, no never, call it malaria, nor even less, typhoid fever, as that will but be disastrous to your poor patient, and a sad blow to your reputation. In the discussion, do not make the mistake that I offer this for a full symptomatology, as I but wish to mention the cardinal symptoms for a tentative diagnosis.

Please do not misunderstand me in what I have said. Don't in your discussion revert to the old chestnut about the cross-roads physician being better posted regarding what I have so hard tried to impress upon us all. I have not even mentioned the cross-roads man, nor country doctor, because they will measure up with the average, I mean us all, the whole medical profession, "lest we forget, lest we forget."

(N. B.—This paper was prepared for the State Medical Society at the 1912 session at Burlington, Iowa, but was not read on account of want of time as the society was prematurely adjourned and this paper with several others were omitted.—C. F. Wahrer, M. D., Waterloo, Iowa.)

SHOULD HE?

During a discussion of the fitness of things in general, some one asked, "If a young man takes his best girl to the grand opera, spends eight dollars on a supper after the performance, and then takes her home in a taxicab, should he kiss her good-night?"

An old bachelor who was present growled, "I don't think she ought to expect it. Seems to me he has done enough for her."—August Lippincott's.

BACK TO NATURE.

A farmer, living near a little town in Western Iowa, had made a goodly bunch of money, but had never been away from home far enough to see an automobile.

One day he hitched up his best team, took his good wife and started to the nearest metropolis to see one "o' them derned things." They were not many miles from home when they heard a "honk-honk" and John jumped from the carriage and steadied the horses while an automobile whizzed by.

They were just ready to start on when there was another "honk-honk" and a motorcycle came tearing into sight. John saw it and piled out to hold the horses, saying, "By Gosh, the pesky critter's got a colt followin' her."

IOWA MEDICAL JOURNAL

A Monthly Journal

Devoted to the Intereste of the Iowa Profession

E. E. DORR, M. D. Editor and Proprietor.

Subscription $2.00 per year, in advance.

"For Sale" and "Want" Ads, $2.00 each insertion. Write for Physician's Cards, $5.00 per year. Advertising Rates.

We request short papers and reports of cases from Iowa Doctors. All papers should be typewritten. Reprints furnished at cost and should be ordered when paper is sent us, as it saves expense.

We want papers from county societies.

OUR PLATFORM.

The Improvement of the Health of Iowa People.
The Improvement in Hygienic Conditions in all Iowa Cities.
The Improvement of the Profession, Individually and Collectively, in the Art and Science of Medicine.
The Improvement in Legislation so as to require High Attainments of every Practician, regardless of his School or Pathy.
The Improvement in Organization, making every legally Registered Physician of Good Standing in his Community a Member of his County and State Society.

Vol. XIX Des Moines, September 15, 1912 No. 3

The Medical Society.

The leaders in medical thought are the men who have made it a part of their professional duty to attend medical meetings. There they have listened to the best efforts of successful men, have compared their own work and results with the authors of the papers and have silently promised themselves that better work in the future would be their daily endeavor.

Later they have essayed to discuss medical subjects and write papers for their medical society, not for the purpose of shedding great and glorious light for the benefit of those who might hear, but for the purpose of the study that it involved and the good that would accrue to them for the labor expended.

It has always been thought that the man who reads a paper before a medical society gets more good from it than the man who listens to the paper.

The writing of a paper brings out the thinking qualities of a man and the desire to make that paper complete, stimulates him to research and keener observation.

The successful essayist is the leading man of his community; he is the man looked up to by those who are too timid to attempt the work.

And he is the pride of the laity for they know that it takes study and keenness of perception to be a successful writer on medical topics.

The state of Iowa has more than one hundred medical societies and there is always a chance for the young man to write and read papers on subjects that most interest him or the community in which he lives.

From an educational standpoint, the medical society is the nearest a post-graduate course many young men are able to take, and to the wide-awake and not overly-satisfied ones it is educational.

Every young practitioner should prepare to take his place in the medical society and give the best that is in him to his fellows, for there are always younger men entering who need the encouragement that the older ones give in their papers and discussions at medical society meetings.

The County Hospital.

The legislature two years ago passed a law that should find strong supporters in every county in the state.

We refer to the establishment of County Hospitals. Public funds could be put to no more humane purpose than in the building of hospitals where the needy—we do not mean the poor alone, for frequently they are not the most needy—may receive scientific treatment that cannot be supplied to them in their homes.

A half-mill tax for a period of twenty years or 5 cents per $1,000 per year, will not impoverish anyone and will add much to the betterment of any community, both medically and educationally.

A number of counties in the state have secured the hospital under the provision of the law, and the communities will reap a reward many times more than the money cost to them, in the betterment of service and encouragement to better efforts on the part of the physicians who serve them.

We append a notice of election in Cherokee County that should interest every physician in every county in the state.

Notice to Electors.—A petition signed by the required number of free holders was presented to the board of supervisors at the July, 1912, meeting thereof, asking that an annual tax be levied for the establishment and maintenance of a public hospital at Cherokee County, Iowa, and that the maximum amount of money to be expended for said hospital is $30,000. You are therefore notified that at the regular election in November, 1912, the question of levying a one-half mill tax on the taxable property of Cherokee county, Iowa, for a period of twenty years for a county bond issue to provide funds for the purchase of a site and the erection thereon of a public hospital and hospital buildings

and for the support of the same will be submitted to the qualified electors of said county.—George Wilson, Auditor.

The Directory of 1912.

We will publish in the October Number the list of Iowa Physicians, by counties and alphabetically, with date and school of graduation.

It is a matter of much interest to the profession that all be given the proper data, and to secure this we have sent a letter to each physician asking that the data be supplied..

Many have become so interested in the Directory that they can't wait patiently for it, while insurance men are asking for the latest information on the men who are to do their work in Iowa.

While we do not consider it a part of the regular Journal, we wish to provide the physicians of Iowa with the latest information of value to them.

Much assistance can be given us by sending the names of new men who have located within the last few months.

Avoca, Iowa, September 12, 1912.

To the Journal:

There is a disease going around here, chiefly among children, which has caused a great deal of controversy among doctors because they don't know what to call it. I will describe the symptoms of these cases, viz; headache, tympanitic condition, tenderness of the bowels and constipation. The movements are typhoid in character, very offensive and the temperature runs from 100 to 104 F. Pulse is inclined to be slow, ranges about 84 to 96. These patients are prostrated and remain sick for 2 or 3 weeks. If any solid food is given too soon after the temperature drops, it rises again to its original height. Some doctors call this trouble malarial, others call it infection of the bowels. It resembles typhoid as it runs a continued fever for about 3 weeks Blood examinations prove to the contrary. This trouble may be caused by improper food and hot weather. You can hardly call it an illio-colitis for nearly all the cases are constipated and they get better and feel better if the bowels are cleared out well. If you can give me any light on this class of cases I wish you would do so.

Yours truly,

D. F. Emmert.

We will gladly publish discussions, etc.

SOCIETY REPORTS.

DALLAS GUTHRIE

Medical Society met in Adel, July 18, where a representative body of medical men listened to the following program: "Open Treatment of Fractures," by Dr. J. W. Harrison; "Treatment of Fractures in and Near the Ankle Joint," by Dr. I. F. Crosby; "Treatment of Fractures in and Near the Wrist Joint," by Dr. D. G. Barkalow. President, Dr. B. H. Criley; Secretary, Dr. A. Moorman.

BOTNA VALLEY

Medical Society held its annual meeting in Atlantic, August 29. A large attendance and an interesting program were the features of the day. Dr. Frank Hanna of Walnut, was elected president, and Dr. A. Weaver of Cumberland, secretary.

POWESHIEK

County Medical Society met in the office of Dr. Bush of Houston, on August 6, to listen to papers by Dr. C. B. Taylor on the "Peroneum" (published this month in the Journal), Dr. Paul Reed of Iowa City, on "Modern Obstetrics," and Dr. E. J. Ringena of Dup River, on "Exophthalmic Goitre." All papers were well received and freely discussed, after which the local physicians gave a luncheon to the visiting doctors.

WEBSTER

County Medical Society has published its program for October, as follows: October 1, "Feeding in Typhoid," by Dr. A. H. McCreight; October 8, "Facts Recently Observed in the Anatomical Study of the Intestines," by Dr. W. W. Bowen; October 15, "The Physician as an Important Factor in Post-Mortem Examinations," by Dr. J. D. Lowry; October 22, "Infant Feeding," by Dr. E. D. Morrison of Barnum.

DES MOINES

County Medical Society held its first meeting after the summer holiday, on September 11. An unusually good program brought out a large membership. The program was as follows: "Acute Tonsilitis, Forms and Treatment," Dr. A. H. Vorwerk, Burlington; "Abnormal Tonsils with Adenoids, Symptoms and Treatment," Dr. E. M. Hanson, Keokuk; "Some Sequel of Enlarged Tonsils and Adenoids," Dr. A. C. Strong, Burlington.

MAHASKA AND MARION

County Medical Societies held a union meeting in Oskaloosa, August 16, that was full of interest. It was the occasion of opening the Municipal Laboratory, under the direction of Dr. M. F. Boyd. A dozen physicians from out of town attended.

Dr. C. F. Aschenbrenner of Pella, read a paper on "Prophylaxis in General," that called for free discussion. Dr. C. W. Cornell of Knoxville, read a paper on "Rheumatism," following the discussion of which all repaired to a banquet at Hotel Lacey.

Little Anna was out-of-dors with her mother in the dusk of a summer evening, and was rather frightened by the gathering shadows. She noticed some flashes of heat lightning across the eastern sky and exclaimed joyfully: "Dod is doin' to light the moon now; he's a sqwatchin' his matches."—Literary Digest.

MEDICAL NEWS NOTES.

Dr. J. R. Gorrell of Newton, is taking treatment at Colfax.

Dr. J. C. Robb of Russel, has been enjoying a vacation in Canada.

Dr. E. E. Harris of Grinnell, is taking post-graduate work in the East.

Dr. A. Babcock of New Hampton, has returned from his trip abroad.

Dr. B. A. Filmer of Hedrick is visiting relatives in Louisville, Kentncky.

Dr. Ira N. Crow of Marengo, has been taking post-graduate work in Chicago.

Dr. and Mrs. Farrell of Mason City, have returned from their Colorado trip.

Fairfield is very proud of their new hospital just completed within the last month.

Dr. W. H. Bickley of Waterloo, is convalescing after an operation for appendicitis.

Dr. and Mrs. T. L. Hazard of Iowa City, recently enjoyed a vacation at Clear Lake.

Dr. S. W. Hartwell of New Sharon, is taking post-graduate work in New York City.

Dr. Anne Shuler of Davenport, is spending several months in Boston and vicinity.

Dr. M. A. Beach of Stratford is recovering from his recent operation for appendicitis.

Dr. E. J. Raw and family of Pierson, spent the forepart of August at Spirit Lake, Iowa.

Dr. D. W. Lunbeck of Burlington, is visiting in various places along the Pacific Coast.

Dr. W. M. Shirley of Waterloo, was called to Indiana, in July, by the death of his mother.

Dr. H. A. Minnassian and family, of Des Moines, have returned from Lake Geneva, Wis.

Dr. and Mrs. L. C. S. Turner of Colfax, are spending the summer in Griffin, Sask., Canada.

Dr. and Mrs. A. R. Leith of Wilton Junction, are visiting the doctor's brother in San Diego.

Dr. and Mrs. Carl W. Wahrer of Fort Madison, visited in Minneapolis, Minnesota, in August.

Dr. J. L. Van Gorden of Emmetsburg, spent a short time in August, visiting in Wisconsin.

Dr. and Mrs. F. H. Little of Muscatine, recently spent several weeks in Colorado Springs, Colorado.

Dr. T. A. King of West Union, attended the meeting of the Rock Island Surgeons, in Pueblo, in August.

Dr. and Mrs. G. B. Thompson and family of Winthrop, have been visiting at various points in Wisconsin.

Dr. U. G. Grigsby and son, Stanley, of Perry, are spending several weeks in Excelsior Springs, Missouri.

Dr. Charles P. Frantz of Burlington, enjoyed a vacation in Denver, Colorado, during the latter part of August.

Dr. and Mrs. D. W. Dickinson and son, of Des Moines, are home from their summer's stay at Lake Okoboji.

Dr. Charles Palen and family of Dubuque, enjoyed a vacation at Gamer's Lake, Waupeton, Iowa, in August.

Dr. and Mrs. J. H. Lawrence have returned to Sioux City, from a five weeks' trip through Southern California.

Dr. and Mrs. J. E. Fraser and son, of Garner, enjoyed a two weeks' outing in Colorado Springs in August.

Dr. Arthur Howard of Boston, has accepted a position as a member of the faculty of the Drake Medical School.

Dr. J. W. LaGrange of Marion, is recovering from his recent severe illness, and is again able to be at the office.

Dr. R. L. Cleaves of Cherokee, has returned from Maine, where he went after attending the Bull Moose convention.

Dr. Evalene Peo of Boone, left in August for a trip abroad. She will take post-graduate work in Vienna and Berlin.

Dr. and Mrs. M. W. Moulton of Bellevue, have returned from their European trip, and report a very splendid time.

Dr. and Mrs. W. S. Grimes of Wapello, have returned from Canyou City, Texas, where they were visiting their daughter.

Dr. and Mrs. Frederick Lambach of Davenport, have returned from an extensive tour of Colorado, Utah and the Yellowstone.

Dr. H. O. Richards of Winterset, is taking a post-graduate course in Chicago, specializing on eye, ear, nose and throat diseases.

Dr. F. H. Boucher of Marshalltown, has recently returned from a couple of weeks spent with his sons in Bingham Canon, Utah.

Dr. J. Scott Stevens of Cedar Falls, has returned from an enjoyable vacation spent on his ranch near Wahpato, Washington.

Dr. Frank Ely of Des Moines, left September 1 for Europe, where he will take post-garduate work in London, Paris and Vienna.

Dr. David M. Ghrist of Ames, was in the hospital for a short time in August. We hope that by now, the doctor is fully recovered.

Dr. Frank A. Will of Des Moines, is in Vienna, taking special post-graduate work in the study of the eye, ear, nose and throat.

Dr. and Mrs. R. J. Matthews of Clarinda, have returned from Ontario, Canda, where they were visiting Dr. Matthews' parents.

Dr. P. B. Cleaves and family of Cherokee, have been spending several weeks in Michigan at the summer home of the doctor's mother.

Dr. and Mrs. H. C. Moffet of Clinton, have returned from a two months' sojourn in California. They report a most enjoyable vacation.

Dr. W. E. Reller of Council Bluffs, has returned from his peach orchard in Arkansas. He declares the climate unequal to that of Iowa.

Dr. C. C. Griffin, Sr., of Vinton, attended the meeting of the Surgeons of the Rock Island Railroad, held in Pueblo, Colorado, in August.

Dr. and Mrs. Taylor Jackson of Albia, are spending several weeks in New York City, where the doctor is taking a post-graduate course.

Dr. and Mrs. R. E. Doidge of Perry, have returned from their very enjoyable trip in Canada. The doctor speaks highly of Canadian land.

Dr. and Mrs. J. McDannell of Nashua, have returned from their vacation spent in various points in Eastern Iowa and Western Wisconsin.

Dr. Robert Davisson of Winterset, was among the Iowa doctors who attended the meeting of the Rock Island Surgeons at Pueblo, in August.

Dr. C. L. Campbell of Atlantic, read a paper at the meeting of the Rock Island Surgeons, in Pueblo, entitled "The Influence of X-Ray on Local Infections."

Dr. F. S. Smith of Nevada, enjoyed a vacation trip in Colorado, in August. He attended the meeting of the Surgeons of the Rock Island Railroad in Pubelo.

Dr. and Mrs. W. H. Smith of Shell Rock, visited in Colorado during August. While there the doctor attended the meeting of the Rock Island Surgeons at Pueblo.

Dr. F. A. Osincup of Waverly, has re-entered the active practice of medicine at that place. He has been unable to practice for a number of years because of poor health.

Dr. J. W. Martin of Des Moines, is convalscing after a severe attack of appendicitis. He was taken seriously ill at the hospital while performing an operation for appendicitis.

Dr. Charles Gillette of Des Moines, has sailed to Foochow, China, where he will assist Dr. Kinnear in the hospital at that place. The doctor expects to be gone about seven years.

Dr. W. L. Whitmire and son, James, of Sumner, have returned from a two months' trip through Western United States and Southwestern Canada. They report a very enjoyable trip.

Dr. A. J. Swezey of Decorah, attended the meeting of the Rock Island Surgeons at Pueblo, Colorado, in August. Mrs. Swezey accompanied him, and they visited in Colorado and Wyoming before returning.

Dr. J. W. Dixon and family of Burlington, recently returned from the Chicago Water Carnival in their trusty pleasure craft, "The Lad." This is but one of the many enjoyable excursions they have made during the summer.

Dr. Laura H. Branson of Iowa City, was badly hurt a short time ago, as the result of being thrown from a buggy. Although her condition seemed very serious at first, she is recovering now, and we hope she will soon be well.

Dr. B. G. Dyer of Ames, is serving as assistant in the nose and throat clinic at the New York Post-Graduate Medical School. Upon his return to Ames, he expects to confine his practice entirely to eye, ear, nose and throat work.

CHANGE OF LOCATION.

Dr. H. A. Beam of Afton, has located in Moline, Illinois.

Dr. M. R. Karterman of Ida Grove, has made arrangements to move to Seattle, Washington.

Dr. E. T. Twining has removed from Onawa, and is now located at Brooke.

Dr. W. W. Matson of Mediapolis, has moved to Lincoln, Nebraska.

Dr. C. H. Heddins of Wellsburg, has removed to Idaho Falls, Idaho.

Dr. W. R. Arthur has sold his practice at Greene to Dr. J. W. Groom, and has become associated with Dr. J. C. Powers of Hampton.

Dr. J. H. Frost of Guttenberg, has moved to Lansing, Mich.

Dr. F. Rosenbladt of Audubon, is now located in Des Moines.

Dr. Paul R. Burroughs of Clarkville, has removed to Allison.

Dr. A. B. Shideler of North Branch, has removed to Van Meter.

Dr. E. A. Hunt has disposed of his practice in Waterloo and is now located at Burlington.

Dr. F. T. Stevens and Dr. Steckel have resigned from the Mt. Pleasant Hospital staff. Dr. Stevens goes to Milwaukee as assistant to Dr. Dewey. His place is to be filled by Dr. Landers of Vermont. Dr. Steckel has accepted a position as assistant at the Kings Park State Hospital, Long Island. His successor is Dr. Cook from the National Soldiers' Home at Dayton, Ohio.

Dr. V. T. Doering has become associated with Dr. J. R. Walker of Fort Madison.

Dr. Robert Shane has located at Kelley for the practice of medicine.

Dr. E. O. Gable of Peoria, Illinois, has filed his physician's certificate at Waterloo.

Dr. R. V. Mater of Oskaloosa, is now located at Fraker.

Dr. and Mrs. G. A. Mershon of Liscomb, will remove to Fairhope, Alabama, in the latter part of September.

Dr. E. R. Jackson of Dubuque, has disposed of his practice to Dr. Charles Loiseaux. Dr. Jackson is moving out West.

BIRTHS.

Dr. and Mrs. E. F. Besser of Newton, are the happy parents of a son, born August 23.

Dr. and Mrs. C. L. Jones of Gilmore City, formerly of Shenandoah, are the parents of a little daughter, born August 21.

Dr. and Mrs. G. A. Heidel of Muscatine, announce the birth of a little boy, August 24.

Dr. and Mrs. G. A. Jenkins of Albia, are rejoicing over the recent arrival of a baby girl in their home.

Dr. and Mrs. A. F. Begg of Des Moines, are the proud parents of a son, born August 8.

Dr. and Mrs. J. A. Matson of Mediapolis are the happy parents of a little girl, born September 11.